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REFERENCES:

(1) Petersdorf, R. G.; Bennett, I. L., Jr., & Rose, M. C.: *Bull. Johns Hopkins Hosp.* 100:1, 1957. (2) Yow, E. M.: *GP* 15:102, 1957. (3) Altemeier, W. A., in Welch, H., and Marti-Ibanez, F., ed.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 629. (4) Kempe, C. H.: *California Med.* 84:242, 1956. (5) Spink, W. W.: *Ann. New York Acad. Sc.* 65:175, 1956. (6) Rantz, L. A., & Rantz, H. H.: *Arch. Int. Med.* 97:694, 1956. (7) Wise, R. I.; Cranny, C., & Spink, W. W.: *Am. J. Med.* 20:176, 1956. (8) Smith, R. T.; Platou, E. S., & Good, R. A.: *Pediatrics* 17:549, 1956. (9) Royer, A.: Scientific Exhibit, 89th Ann. Conv. Canad. M. A., Quebec City, Quebec, June 11-15, 1956. (10) Bennett, I. L., Jr.: *West Virginia M. J.* 53:55, 1957. (11) Altemeier, W. A.: *Postgrad. Med.* 20:319, 1956. (12) Felix, N. S.: *Pediat. Clin. North America* 3:317, 1956. (13) Metzger, W. I., & Jenkins, C. J., Jr.: *Pediatrics* 18:929, 1956. (14) Woolington, S. S.; Adler, S. J., & Bower, A. G., in Welch, H., and Marti-Ibanez, F., ed.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 365. (15) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 99:744, 1957.

MEDICAMENTA VERA

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Community Planning for Disasters

A number of splendid talks made memorable the first statewide meeting of health-services committeemen from the eight Civil Defense districts of Iowa. Sponsored by the Iowa Interprofessional Association, it took place in Des Moines on December 11, and was attended by 31 persons.

Emphasis was placed upon the necessity for the various professions to organize at the community level and to make plans for coping with disasters such as train wrecks, explosions, tornadoes, etc., as well as surprise enemy attacks. The speakers pointed out that though, in most instances, the local hospital can be expected to serve as a base of operations, the medical and para-medical professions must prepare to work together so as to provide care for the total community on an emergency basis.

NON-PROFESSIONALS MUST BE MOBILIZED

Dr. Floyd Burgeson, of Des Moines, vice-president of the Iowa Interprofessional Association, was moderator in the absence of the president, Mr. Louis Blair, administrator of St. Luke's Hospital, Cedar Rapids. Mr. Blair's paper, read by Dr. Burgeson, underlined the need for mobilizing non-professional people as well as the regular health-service workers.

Mr. C. E. Fowler, director of the Iowa Civil Defense Department, said that there is no problem in enlisting enough volunteers for service in case of serious trouble, but that the problem lies in maintaining their interest. In part for that purpose, he said that communities should conduct "trial runs," in which everyone might have a job to do. He went on to say that the "new look" in Civil Defense is an arrangement in which there is continuity of all governmental agencies right down to the lower echelons, with volunteer groups such as the Iowa Interprofessional Association or some other service organization working constantly to keep them informed and active. Mr. Fowler distributed packets of pamphlets to the members of the group. They contained leaflets bearing titles such as "The Dentist's Role in Civil Defense," "The Veterinarian's Role . . . ," etc., "Health Services and Special Weapons," and "Principles of Hospital Disaster Planning," by Dr. Robert C. Hardin. He also made available some copies of a map of Iowa showing the Civil Defense districts and the locations of hospitals in each county.

THE JOB IS TOO BIG FOR M.D.'S ALONE

Mr. Donald L. Taylor, secretary-treasurer of the Iowa Interprofessional Association and executive secretary of the Iowa State Medical Society, gave a short review of Iowa's planning for disasters, and in particular the part that IIA has taken in that planning. He said that this activity had been made the Association's major public health project for the year extending from September, 1957, to September, 1958. At a meeting of the chairmen of the various professions' disaster committees, a composite group was formed so that planning could be well coordinated, and Dr. Hardin was made its chairman. Mr. Taylor said that although the physicians of Iowa are willing to undertake major responsibility for disaster planning, they know the job is too big for them to do alone, and they want to share it with the other groups that are members of the Iowa Interprofessional Association.

Dr. Hardin then spoke on "Principles of Hospital Disaster Planning," using several lantern slides to supplement his remarks. He covered such topics as the make-up of disaster committees, the types of potential disasters, the types of action which each necessitates, technic for the reception of casualties, and the assignment of duties. He also touched upon the necessity for expanding plans in anticipation of regional disasters. Because an atomic attack would produce fantastic numbers of casualties, including some M.D.'s, para-medical groups might have to undertake great and unusual responsibilities, and they should be trained, in so far as is possible, in anticipation of that eventuality.

NURSES, DENTISTS, VETERINARIANS MUST HAVE SPECIAL TRAINING

The out-of-state speaker at the meeting was Dr. Irving Laudeutscher, of Denver, medical officer for the Sixth Region, Federal Civil Defense Agency. He began his remarks by asking, "Why does Civil Defense have such a high boredom rating?" The explanation, he said, isn't apathy or complacency, but overwhelmedness. Sensationalists have overimpressed people with the enormity of the problems that face them, and in consequence the majority of Americans have become fatalists—people who confidently expect the worst, but do nothing.

THE JOB CAN BE DONE

Dr. Laudeutscher is a veteran of both World Wars and of the Korean conflict; thus he spoke from first-hand knowledge. He declared that the medical problems of Civil Defense are new only in the quantities of injuries that are to be anticipated, not in their kinds. Radiation burns pose problems for which we don't yet have all of the answers, but they are burns, and we know how to treat burns. As for thermal effects, we've had such injuries before. Wounds from explosive devices are likewise nothing new.

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The major difficulty, he said, is that our medical resources aren't now equal to the task which a nuclear attack would pose. For that reason, nurses, dentists, pharmacists and veterinarians must be prepared to assist or replace medics in treating simple injuries, relieving shock, etc.

As for physicians, Dr. Laudautscher said that many medical men need training in the care of traumatic injuries. He declared it essential that every doctor—be he pediatrician, psychiatrist or dermatologist—receive that training beforehand, for there won't be time for him to "bone up" afterward.

As an example of the training which can be given to para-medical groups, he said Army dentists are being put through a course at Brooke Army Center, in Texas, involving care of hemorrhages, administration of anesthesia, tracheotomy procedure, treatment of burns and wound debridement. Other professions such as nurses and veterinarians are being given similar training in the likelihood that the armed forces won't have enough M.D.'s to go around.

Dr. Laudeutscher said that the F.C.D.A. is planning to pre-position possibly as many as 20,000 emergency 200-bed mobile hospitals and emergency treatment stations around the country. There also will be some specialized units available, such as neurological hospitals, but they will not be prepositioned because neurologists will be needed for each of them and the availability of such specialists in the disaster area won't be known in advance. The same applies for special EENT units.

PRAISE FOR IOWANS

In closing, Dr. Laudeutscher said, "Nowhere have I seen among the rank and file the interest —as well as the actual movement—to do something about Civil Defense and disaster planning as I have seen here in Iowa. All of you are to be commended for your efforts in disaster planning, and I hope you will continue it."

Highlights of the National "Medicare" Meeting Held in Philadelphia, December 6, 1957

At a meeting held in the Bellevue-Stratford Hotel, in Philadelphia, on December 6, 1957, in conjunction with the Clinical Session of the AMA, Defense Department and AMA officials reported their experience with "Medicare," which, coincidentally, ended its first full year of operation on that very day.

As of November 30, 1957, they said, $22,745,606 had been expended for 316,682 professional services, at an average cost of $71 per claim. Hospitals had received $20,895,467 for 198,235 cases, the average length of hospitalization having been 5.3 days. They estimated that for the fiscal year commencing July 1, 1957, the expenditures for the program will approximate $70,000,000.

Immediately after the first of January, 1958, individual states will begin negotiating their new contracts. Iowa is scheduled to negotiate in mid-April for a new contract and a revised fee schedule. Washington has prepared a uniform nomenclature, and all states will be asked to use it as a basis for negotiating their new contracts. Each state will be responsible for its own schedule of fees to be applied to the new format.

Freedom of patient in selecting a physician will still prevail, with the physician determining whether or not he desires to treat the patient.

Title I of the Act provides medical care for retired parents and parents-in-law, and for dependents of deceased military personnel, under certain conditions. There was some discussion about the possibility of permitting such persons to be treated by civilian physicians in local hospitals under Title II of the Act, rather than forcing them to seek care in military facilities by uniformed personnel.

Other items that were discussed included "contract exclusions on chronic illnesses, dental care, and nervous and mental disorders." The new contracts will clarify this area to some extent.

It seemed that the Washington officials will make a sincere effort to tailor each new contract more nearly to fit the conditions in which medical care is furnished to the dependent.

The new contract, in tentative form, will be sent to each medical society at least 60 days prior to the date scheduled for its negotiation, so that the officers of each medical society may have ample opportunity to study it and have it checked by their legal counsel.

AMA House of Delegates Philadelphia Meeting

December 3-6, 1957

A Condensation of the Report of George F. Lull, M.D., *Secretary-General Manager*

Fluoridation of public water supplies, free choice of physician, the Heller Report on organization of the AMA, the Forand Bill providing hospital and surgical benefits for Social Security beneficiaries, guides for occupational health programs covering hospital employees, distribution of Asian influenza vaccine and guides for the medical rating of physical impairment were among the variety of subjects acted upon by the House of Delegates at the AMA's Eleventh Clinical Meeting held Dec. 3-6 in Philadelphia.

Dr. Cecil W. Clark, of Cameron, Louisiana, was named 1957 General Practitioner of the Year after his selection by a special committee of the Board of Trustees for outstanding community service. Dr. Clark, 33-year-old country doctor who was a medical hero during Hurricane Audrey last June, was present at the meeting to receive the gold medal which goes with the award.

Speaking at the opening session on Tuesday, Dr. David B. Allman, of Atlantic City, AMA president, called for "more freedom, not less, in America and in the medical profession." Dr. Allman urged the delegates to embark on local action campaigns to enlist full community support in opposition to the Forand Bill, a pending Congressional proposal which would provide hospital and surgical benefits for persons who receive or are eligible for Social Security retirement and survivorship payments. The Forand Bill, he said, is "cut from the same cloth" as national compulsory health insurance and "emanates from the same minds."

Total registration at the end of the third day of the meeting, with half a day still to go, had reached 5,375, including 2,562 physician members.

FLUORIDATION OF WATER

In settling the most controversial issue at the Philadelphia meeting, the House of Delegates approved a joint report of the Council on Drugs and the Council on Foods and Nutrition which endorsed the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood. The 27-page report on the study which was directed by the House at the Seattle Clinical Meeting one year ago contained these conclusions:

"1. Fluoridation of public water supplies so as to provide the approximate equivalent of 1 ppm of fluorine in drinking water has been established as a method for reducing dental caries in children up to 10 years of age. In localities with warm climates, or where for other reasons the ingestion of water or other sources of considerable fluorine content is high, a lower concentration of fluoride is advisable. On the basis of the available evidence, it appears that this method decreases the incidence of caries during childhood. The evidence from Colorado Springs indicates as well a reduction in the rate of dental caries up to at least 44 years of age.

"2. No evidence has been found since the 1951 statement by the Councils to prove that continuous ingestion of water containing the equivalent of approximately 1 ppm of fluorine for long periods by large segments of the population is harmful to the general health. Mottling of the tooth enamel (dental fluorosis) associated with this level of fluoridation is minimal. The importance of this mottling in outweighed by the caries-inhibiting effect of the fluoride.

"3. Fluoridation of public water supplies should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm of fluorine."

FREE CHOICE OF PHYSICIAN

Acting on the issue of free choice in relation to contract practice, the House passed a resolution which reaffirmed approval of previous interpretations of the PRINCIPLES OF MEDICAL ETHICS by the Association's Judicial Council and directed that they be called to the attention of all constituent associations and component societies. One Council opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available." The resolution also cited a Council opinion, published in the October 19, 1957, issue of J.A.M.A., which stated that the basic ethical concepts in both the 1955 and 1957 editions

of the PRINCIPLES OF MEDICAL ETHICS are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1927 Council report also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgment of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

In another action related to the issue of free choice, the House adopted a resolution condemning the current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund "as tending to lower the quality and availability of medical and hospital care to its beneficiaries." The resolution also called for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

THE HELLER REPORT

Acting on the report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on ten specific recommendations:

1. The office of Vice-President will be continued as an elective office.

2. The offices of Secretary and Treasurer will be combined into one office to be known as Secretary-Treasurer, and that officer will be selected by the Board of Trustees from one of its number.

3. The duties of the Secretary-Treasurer will be separated from those of the Executive Vice-President.

4. The office of General Manager will be discontinued, and the new office of Executive Vice-President will be established. The latter, appointed by the Board of Trustees, will be the chief staff executive of the Association.

5. The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the Executive Vice-President.

6. The voting members of the Board of Trustees will be limited to eleven—the nine elected Trustees, the President and the President-Elect. The Vice-President and the Speaker and Vice-Speaker of the House of Delegates will attend all Board meetings, including executive sessions, with the right of discussion but without the right to vote.

7. The House disapproved of the proposal to elect the Trustees from each of nine physician-population regions.

8. The office of Assistant Secretary will be discontinued, and a new office of Assistant Executive Vice-President will be established.

9. The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National Defense.

10. The Speaker of the House will appoint a joint and continuing committee of six members, three from the Board of Trustees and three from the House, to redefine the central concept of AMA objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies and study socio-economic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

THE FORAND BILL

The House condemned the Forand Bill as undesirable legislation, approved the firm position taken in opposition to it and expressed satisfaction that the Board of Trustees has appointed a special task force which is taking action to defeat the bill. In a related action, giving strong approval to Dr. Allman's address at the opening session, the House adopted a statement which said:

"It is particularly timely that our President has so forcefully sounded the clarion call to the entire profession for emergency action. With complete unity, definition and singleness of purpose, closing of ranks with all age groups and elements of our organization we must at this time stand and be counted. Thus we can exert the physician's influence in every possible direction against invasion of our basic American liberties in the form of proposed legislation alleged to compulsorily insure one segment of the population against health hazards at the expense of all."

HEALTH PROGRAMS FOR HOSPITAL EMPLOYEES

A set of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group" was approved by the House. The guides were developed by a joint committee of the American Medical Association and the American Hospital Association and already had been formally approved by the A.H.A. They include these statements:

"Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the techniques of preventive medicine which have been found by experience in industry to approach con-

structively the health requirements of employees.

"It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program."

ASIAN INFLUENZA VACCINE

The House considered three resolutions dealing with the Asian influenza immunization program and then adopted a substitute resolution calling attention to "certain inadequacies and confusions in the distribution of vaccines" and directing the Board of Trustees to seek conferences through existing committees "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interests of all the people may be served." The resolution pointed out that the AMA already has a joint committee with the American Pharmaceutical Association and the National Association of Retail Druggists, in addition to a liaison committee with the Drug Manufacturers Association.

MEDICAL RATING OF PHYSICAL IMPAIRMENT

The House accepted a 115-page GUIDE TO THE EVALUATION OF PERMANENT IMPAIRMENT OF THE EXTREMITIES AND BACK which was developed by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The delegates commended the Committee for doing "a superb job on this difficult subject" and expressed pleasure that the guides will be published in J.A.M.A. The guides are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

MISCELLANEOUS ACTIONS

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study neurologic disorders in industry

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary medical research, and correlate and disseminate the results of studies already under way

Decided that informational materials which are sent to AMA delegates should also be sent to all alternate delegates

Affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other lawful groups, provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians

Instructed that the appropriate committee or council should engage in conferences with third parties to develop general principles which may be applied to the relationship between third parties and members of the medical profession

Urged state medical society committees on aging and insurance to make continuing studies of preretirement financing of health insurance for retired persons

Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on veterans' medical care during 1958

Asked the Board of Trustees to study the feasibility of having the AMA finance a thorough investigation of the Social Security system by a qualified private agency

Suggested that physicians and their friends make a vigorous effort to obtain Congressional enactment of the Jenkins-Keogh Bills

Approved the SUGGESTED GUIDES TO RELATIONSHIPS BETWEEN MEDICAL SOCIETIES AND VOLUNTARY HEALTH AGENCIES

Strongly recommended that a completely adequate and competent medical department be established in the Civil Aeronautics Administration directly responsible to the CAA administrator

Congratulated the General Electric Company for its medical television presentations on the subject of quackery.

OPENING SESSION

At the opening session, Rear Admiral B. W. Hogan, surgeon general of the U. S. Navy, presented the Navy Meritorious Public Service Citation to Dr. Dwight H. Murray, of Napa, California, immediate past-president of the AMA. Contributions to the American Medical Education Foundation for financial aid to the nation's medical schools were presented by four state medical societies: California, $143,043.25; Utah, $10,390; New Jersey, $10,000; and Arizona, $8,040. The Interstate Postgraduate Medical Association of North America gave $1,000, and the Illinois State Medical Society announced that it was adding $10,000 to the $170,450 which it presented at the New York Meeting last June.

TRUDEAU SOCIETY RESEARCH GRANTS

Applications are being accepted until March 1, 1958, by the Iowa Trudeau Society for research grants in the areas of tuberculosis, respiratory physiology and associated fields.

County tuberculosis associations in Iowa are providing Christmas-seal funds on a voluntary basis again this year, through the Iowa Tuberculosis and Health Association, for research projects within the state.

Application forms may be secured from the Medical Research Committee of the Iowa Tuberculosis and Health Association, 2124 Grand Avenue, Des Moines 12. The Committee consists of Dr. Ian M. Smith, chairman, and Dr. Kenneth R. Cross, both of Iowa City, Dr. W. K. Cooper, Cedar Rapids, Dr. Ralph H. Heeren, Des Moines, and Dr. Lewis J. Dimsdale, Sioux City.

Attorney General Norman A. Erbe Issues an Official Opinion Regarding the Publicizing of Payments By County Hospitals to Medical Specialists

November 1, 1957

Mr. D. M. Statten
Boone County Attorney
Boone, Iowa

Dear Mr. Statten:

Your letter of October 18, 1957, states that the Trustees of Boone County Hospital have entered into an agreement with four medical doctors for the performance of all x-ray and laboratory work to be done at the hospital. Although the hospital will bill the patients as the agent of the doctors, a predesignated percentage of the fees collected is retained by the hospital and the balance is remitted to the physicians.

At the present time all money collected on these accounts by the hospital is deposited to the hospital account as county funds. Presumably, this is done in accordance with Section 347.12 of the 1954 Code which provides:

> County treasurer: The county treasurer shall receive and disburse all funds under the control of said board of trustees, the same to be paid out only upon warrants drawn by the county auditor by direction of the board of supervisors after the claim for which the same is drawn has been certified to be correct by the said board of trustees.

Payment to the doctors is then made by county warrant and such payment is publicized pursuant to Section 349.1B of the 1954 Code which provides:

> Supervisors' proceedings—each payee listed—publication. All proceedings of each regular, adjourned, or special meeting of boards of supervisors, including the schedule of bills allowed, shall be published immediately after the adjournment of such meeting of said boards, and the publication of the schedule of the bills allowed shall show the name of each individual to whom the allowance is made and for what such bill is filed and the amount allowed thereon. The county auditor shall furnish a copy of such proceedings to be published, within one week following the adjournment of the board.

Your first question is whether Section 349.18 requires the publication of the bills filed and the amount paid to the doctors for the amount due them pursuant to their agreement with the hospital.

This question must be answered affirmatively as to all funds which have been deposited as County Funds—1940 Report of Attorney General, 363.

You then ask, if the answer to the first question is in the affirmative, can an arrangement be made whereby the amount paid to the doctors would not have to be published. It is the opinion of this office that this can be done by virtue of Chapter 92, Acts of the 57th General Assembly. Section 4 clearly expresses the sense of the legislature that pathology and radiology services performed in hospitals are *medical* services. Section 5 requires a hospital to enter into a written or oral agreement with a doctor for the direction and supervision of its radiology or pathology department. Sections 9 and 10 are designed to apprise the patient of the fact that laboratory and x-ray fees are for medical services although they may be collected by the hospital on behalf of the doctor. Section 12 reiterates that "fees for radiology and pathology must be paid for as medical and not hospital services."

The hospital, then, serves only as the agent of the doctor for the collection of radiology and pathology fees. As the agent of the doctor, the hospital has an affirmative duty to retain the funds of this principal and pay them over promptly when demanded or as agreed. The agent must also keep and render accounts. American Jurisprudence, Agency, Sections 282, 286. "Only in an exceptional case may the agent treat the funds as his own for as a rule they are to be applied to the purposes of the agency"—1d. Section 282.

It is clear that the funds coming into the hands of the hospital in payment of radiology and pathology fees are not "funds under the control of the Board of Trustees" within the meaning of Code Section 347.12, but are in fact funds subject to the control and direction of the hospital's principal, the doctor. These funds need not be deposited in the county treasury unless directed by the principal. With the exception of that portion of the total collected by the hospital which is charged to the doctors for the use of the hospital facilities, they are not public monies which are required to be held, disbursed, and accounted for in accordance with the statute.

Even though publication is not required under the agency relationship described herein the hospital Board of Trustees are not relieved from the requirement of disclosing all relevant facts pertaining to the operation of these departments in their annual report to the Board of Supervisors required by paragraph 10, Code Section 347.13.

Very truly yours,

(Signed) Norman A. Erbe
Attorney General

Scientific Articles

Urological Aspects of Lower-Abdominal Pain

ARTHUR WOODWARD, M.D.

WATERLOO

RATHER THAN ATTEMPTING to discuss all of the steps that should be taken in the differential diagnosis of a case of abdominal pain due to renal or other gynecologic or surgical disease, I shall, instead, list in an organized way a few of the diseases that one should think of when he interviews a patient who may have urologic disease. I shall also discuss a few interesting cases that I have encountered.

Diseases of the genitourinary tract that may cause pain can best be classified according to the pathologic processes involved. Therefore, I shall start with congenital anomalies, go on to tumors, mechanical lesions, metabolic lesions and inflammatory lesions, and then touch briefly on some of the traumatic problems that arise in the practice of urology.

CONGENITAL LESIONS

Congenital lesions are important because approximately 30 or 40 per cent of all pathology that is discovered in the upper urinary tract is caused by congenital abnormalities.

Cystic kidneys, either unilateral or bilateral, and either polycystic or simple, are extremely painful at times, and they frequently bleed. There have been many reports of severe surgical abdomen produced by intraperitoneal rupture of these cysts.

Supernumerary kidneys, as in the pelvic kidney, may cause severe pain. Attention is usually brought to these anomalous organs as a result of pregnancy, stone or trauma.

Case No. 1, a 19-year-old, all-state halfback, was brought to the emergency room after he had been hit in the lower abdomen while playing football. The patient had gross hematuria and severe lower-abdominal pain. He was given a urologic work-up. The bladder was found to be intact, and intravenous pyelograms revealed a non-functioning left kidney. The patient was placed in bed. Blood-pressure readings were taken every few minutes, and all the urine was checked to find out when he bled and how much he bled. Antibiotics were instituted, and hemoglobin hematocrits were studied daily. The bleeding cleared, and the patient remained afebrile. A retrograde pyelogram was done later, and a large pelvic kidney was found.

Horseshoe kidneys are very painful at times and produce symptoms due to intermittent obstruction, sepsis and stone formation. There can be pain in the absence of these complications, but they should be looked for in any case of undiagnosed lower-abdominal pain.

Case No. 2, a 40-year-old priest who was seen at Garden City Hospital, had had a diagnosis of horseshoe kidney for several years, and had been treated for a functional disease for a long time. The pain was located in the mid-abdomen. It was a severe, boring type of pain that radiated through to his back. The isthmus of the large horseshoe kidney was severed, and the poles were tacked out to the psoas muscle. The patient was subsequently asymptomatic.

Malrotated kidneys may cause lower-abdominal pain either by exerting pressure on the bowel, by pulling on a pedicle or by intermittent hydronephrosis.

Congenital hydronephrosis is a difficulty to which attention is often brought after a child has had numerous work-ups for nausea, vomiting and lassitude. Frequently, it will be found that there is a non-functioning section of a double kidney.

Aberrant vessels are notorious for causing lower-abdominal pain. Frequently, it is an intermittent or steady, colicky type of pain. It may be located in the flank, radiating to the lower abdomen, or it may be only in the lower abdomen, but it

usually is located to one side. It is becoming more and more evident that pyelography is indicated in cases of acute lower abdominal pain, for after the pain has subsided, the highly resilient musculature of the upper urinary tract returns to normal. Therefore, normal pyelograms taken when there is no pain do not exclude the possibility of intermittent obstructive uropathy caused by aberrant vessels. The treatment, of course, is to expose the kidney, divide the vessels and do a pyeloplasty in the area of the constriction of the pelvis by the vessel because the area here will have hypertrophied musculature, and just dividing the vessel will not relieve the obstruction.

Uretheral abnormalities frequently may be the cause of lower-abdominal pain. Ureterocele causes pain by vesical distention, back pressure, irritation and spasm.

Case No. 4, a little baby, was brought to the pediatric department with a severely distended abdomen. The history showed no urinary output during the previous 24 hours, but prior to that time the infant had been voiding what the mother called a normal amount. Examination of the genitalia showed a tumor mass protruding from the urethra. An obstructing ureterocele was diagnosed. It was picked up with Allis clamps and incised, and a very large amount of urine was obtained. The ureterocele had obstructed both ureters, and had caused the severe abdominal distention via huge hydro-ureters.

Postcaval ureters will cause pain. Usually the pathology is in the mid-abdomen, and there may or may not be accompanying infection. Congenital valves of the ureter and congenital diverticula are also possibilities.

Urachal cysts usually cause bearing-down pain in the suprapubic area. Associated with the pain the patient may have a history of urosepsis or hematuria, but not necessarily. The patient may give a history of leaking urine through the umbilicus at an early age, and subsequent closure.

A particular case that I want to describe is that of a four-year-old boy who came in with severe lower-abdominal pain. He had a great many bowel symptoms—intermittent cramping and diarrhea, frequency of urination night and day, and several episodes of bloody urine. The child had had so much frequency, nocturia and enuresis that consideration was given to the diagnosis of congenital vesical neck contracture or urethral valve, and the bowel symptoms were thought to reflect secondary uremia. The intravenous pyelograms showed the kidneys to be normal, however. The bladder had a tumor deformitory on the cystogram. The child was cystoscoped, and a large extravesical tumor mass was palpated. It was fairly close to the skin, and a diagnosis of infected urachal cyst was made. A laparotomy was done, and the cyst was found to involve the whole urachus and the dome of the bladder. It had ruptured into the mesentery, and a large abscess was involved in and around the ileum. The mass was removed without incising it, and an anastomosis of the ileum was done. The dome of the bladder was removed, and a cystotomy was done. The patient got along very well. Five days after the operation, the cystotomy tube was removed, and a urethral catheter was left indwelling until the suprapubic sinus closed. Then it was removed. The patient voided well, and his lower-abdominal symptoms were gone too.

Congenital ureteral strictures are not very common. One can find it very confusing when a patient presents himself primarily as a urological problem, for he may develop severe obstructive pyelonephritis following instrumentation.

Congenital vesical diverticulum, I shall illustrate by means of a brief case review. The patient was a female who had severe lower-abdominal pain, always located on her right side. The intravenous pyelograms were normal. The ureter was normal, and the cystogram on the affected side was normal from the intravenous media. Cystoscopy revealed a large diverticulum coming off the right side of her bladder. It had a small opening. Catheters were advanced up the ureter, and the ureter was not in the diverticulum. The patient had a diverticulectomy, and the pain subsided.

TUMORS

Neoplastic lesions of the genitourinary tract usually do not produce pain in the early stages. Squamous cell carcinoma of the urethra causes a great deal of suprapubic pain, but fortunately it is fairly rare. Frequently, the nodes in the inguinal area which drain the carcinoma of the urethra will become painful. Leukoplakia of the ureter is very painful, but it is diagnosed very infrequently and necessitates pyelography for its diagnosis. Carcinoma of the bladder usually does not cause pain in the lower abdomen, unless it is a squamous cell carcinoma or a highly infiltrating, flat type of lesion. Recently, we have had a couple of cases of carcinoma of the bladder develop in patients who had previous transurethral resections of the prostate. These patients came in complaining of severe suprapubic pain associated with some infected urine. They were thought to have severe bladder spasms following a prostatectomy. Their condition did not clear. Cystoscopy revealed the flat invading carcinomatous tissue to be in the dome of the bladder. Adenocarcinoma of the bladder is rare. It is usually the result of a remnant of the urachal arrest, and so far as I know, the initial symptoms are mainly hematuria. Carcinoma of the prostate in its early stages does not cause pain in the lower abdomen. Naturally, after it has spread to the bone, patients get radiculitis and periosteal pain that may be localized in the lower abdomen.

Metabolic disturbances that cause urologic disturbances, with consequent lower-abdominal pain, are fairly common. One of the principal diseases

is gout. It may produce symptoms of acute ureteral colic, and the patient may only be passing a lot of ureteral sludge. It is important to remember that patients need not have the acute gouty arthritis in order to produce urinary symptoms. Individuals with incipient gout who go out on terrific binges of eating and drinking frequently have severe pain that may start in the flank and radiate into the lower abdomen.

MECHANICAL LESIONS

Renal and ureteral calculi may cause a great diversity of symptoms located in the lower abdomen. Naturally, these are influenced by the amount of obstruction, the amount of infection and the amount of edema around the ureter. Also, the reflex phenomena that take place may cause the patients to complain of a great deal of discomfort in the lower abdomen, and may cause a great amount of ileus and signs and symptoms of acute surgical abdomen, with nausea, vomiting and distention. They may or may not cause secondary cystitis, with suprapubic pain and spasm. Of course, ureteral calculi are more common in men than in women, but the percentages aren't too far apart. It may be of some help that in about 85 to 90 per cent of cases of ureteral calculi, there will be red blood cells in the urine. The typical symptoms of vesical stone consist of severe pain, hematuria, dysuria and stranguria. The discomfort may be dull aching or sharp, and the pain is usually more pronounced at the end of urination.

Prostatic calculi are fairly common in all age groups, but especially after the age of 40. These calculi commonly cause suprapubic pain, rectal fullness and prostatitis that don't respond to any other therapy. Frequently, prostatic calculi in young, active men will cause hematuria, especially after exercise.

One case I remember was a mailman about 44 years old. This man didn't have any urinary complaints at all. He had suprapubic pain that radiated to his back, and after finishing his mail route every day, he would pass bloody urine. He had a large number of small, prostatic calculi, and when they had been removed transurethrally, he became asymptomatic.

Another patient, a 58-year-old man, came in for treatment of a far-advanced carcinoma of the prostate. He had been on estrogens for a year. When he came to us, he was having extreme difficulty passing his urine. We were unable to catheterize him, and his prostate was stony hard. We gave him an anesthetic and bimanually passed a sound through the urethra into the bladder. As the sound slipped through into the bladder, the rectal finger felt the grating and the cracking. Our suspicions were immediately aroused. We got a KUB film while the patient was still on the table, and it showed that the entire prostate was solid stone. The patient had a subsequent modified radical retropubic prostatectomy. No carcinoma was found, and on his two fairly recent visits to us for postoperative care, he appeared very much improved.

Urethral calculi in males are usually secondary to bladder calculi, and may form in a diverticulum, attain good size and require operative removal. They have also been described developing in the ureteral diverticulum of the female.

I had one interesting case. The stone was in the uretheral diverticulum that opened off the roof of the prostate. I could see the stone on x-ray, but could never visualize it endoscopically until, while examining the urethra with a four oblique lens, I turned the instrument 180 degrees and looked up into the large diverticulum with the stone in it. The stone had been causing the patient a great deal of suprapubic pain and actual periosteal irritation—almost symptoms of an osteitis pubis.

In another patient, the stone was trapped in the urethra. This one had been caused by trauma. The patient had been in a mine accident about 20 years previously, and had gone into acute urinary retention following a hernia repair.

Foreign bodies in the bladder, of course, cause severe pain and spasm in the lower abdomen. One cannot always rely on the history that the patient gives in ruling out this possibility. I remember we had a 56-year-old man who came in with acute pain in the lower abdomen. His urine was purulent and bloody, and x-ray of the bladder area showed that he had moderate distention. Some calculi were present in the bladder. The patient was taken to the hospital, he was given an anesthetic and an attempt was made to crush these small calculi. But when we got the examining cystoscope into the bladder, we could see that they were much bigger than we had expected, and that they were floating around inside the bladder. When we had been unable to engage them in the lithotrite, we did a suprapubic cystotomy and found four rolled-up crayons in his bladder. I cite this case because one doesn't expect to find foreign bodies in the bladders of patients of the older age group, and thus may not think of them as a possibility.

INFECTIONS

Inflammatory lesions that may cause pain in the lower abdomen are numerous. Pyelonephritis may cause acute discomfort there. I have known it to simulate acute appendicitis, and it is sometimes very hard to keep general surgeons from operating upon such patients in the acute phase.

Space does not permit my dwelling on the antibiotic treatment of choice in each of the various bacterial infections of the kidney. Tuberculosis of the kidney and bladder is very painful. Tuberculous ureteritis is very painful, and when it is treated by antituberculous drugs it may cause a severe secondary obstructing pyelonephritis.

Infections of the urethra, many urologists and

other practitioners have come to recognize, can result in pain, but most referring physicians haven't readily accepted that fact. Urethritis causes pain in the lower abdomen and low-back areas for patients of both sexes. Most individuals characterize it as an aching. It varies from mild to severe, sometimes being bad enough to keep the patient from sleeping at night.

The etiology of these symptoms may be explained on the basis of pericystitis and secondary spasm of the pelvic and abdominal musculature. Therefore, we think it is a good idea for these patients to have a urologic work-up after other pathologies of the pelvis have been investigated and ruled out. Many times, the pain in the lower abdomen can be reproduced by palpation of the urethra over a sound, or panendoscopy may reveal severe polyps in the urethra, vesical neck and trigone. The urethritis may be so severe, with granulations and edema, that the trigone becomes involved, causing ureteritis and pain of the flank and lower quadrant. In ureteritis, the pain may be either colicky or referred to the characteristic side of renal colic. But it may also be dull, and frequently it is described by the patient as the type of lower-abdominal pain which he feels he should be able to relieve by pushing and squeezing. Frequently the patient will have placed a heating pad or a hot water bottle over the lower abdomen to help ease the tender area. Actually, it is helpful in this type of problem to reduplicate the pain by passing a dilating ureteral catheter. Sometimes the pelvis of the kidney will be distended slightly, but not necessarily. It is the cognizant physician who remembers that the spastic ureter may be set up by pathology in the adjacent structures, such as pelvic inflammatory disease, prostatitis, seminal vesiculitis and—we don't want to forget our old friend—diverticulitis, for diverticulitis frequently causes pain in the lower abdomen and in the back. Associated with this pain, many patients will have severe vesical irritative symptoms, and all of you, like me, have had cases that have developed a fistulous formation from the diverticula into the bladder.

Getting back to urethritis, I might mention that we frequently encounter cases of severe posterior polypoid urethritis which will not respond to the conservative treatment of antibiotics and dilatation, and which are best treated by resection of the hyperplastic granular mucosa. Other types of urethritis that respond better to surgical treatment are the ones caused by severe meatal stenosis and urethral diverticulum and caruncles with mucosal eversion. Since the introduction of modern antibiotic drugs, one often hears a history of continuous voiding symptoms of slight or moderate degree, punctuated by episodes of cystitis with suprapubic pain and spasm which yield quickly to medication but always recur within a short time. It is unfortunate that this clinical picture has come to be regarded by many physicians as hopeless from the point of view of treatment.

Interstitial cystitis is a very painful pathologic process. It has several other names, such as panmural cystitis and Hunner ulcers. It causes severe suprapubic pain and spasm, and though it can occur in males, it is more common in females.

Prostatitis is common in males of all age groups. It causes suprapubic pain, back ache and fullness in the rectum. The patient may have bladder irritative symptoms, but they are not necessarily pathognomonic.

Neuromuscular disease of the bladder may produce many bizarre lower abdominal symptoms. The patient with an atonic bladder from chronic overdistention may complain of fullness in the lower abdomen, or after the bladder decompensates enough, a hydro-ureter may develop, and the pain may localize to one side or the other. Frequently, these patients are unconscious of their high residual urine and will give no history of trouble in voiding. A higher percentage will have frequent episodes of lower urinary-tract infection, with dysuria, frequency and urinary tenesmus. Also, if allowed to go untreated, they will develop bladder stones, ureteral stones and chronic pyelonephritis. In the male, this type of bladder is commonly seen as a result of a small, highly obstructing prostate or a vesical neck constriction. In my experience, this type of bladder has been more common in patients with long-standing diabetes, posterior-column disease as a result of pernicious anemia, or tabes. After the diagnosis has been made, of course, the treatment is the reestablishment of good and perfect drainage.

Other neurologic lesions that may produce severe symptoms in the lower abdomen are cerebral arteriosclerosis, Parkinson's disease and early multiple sclerosis. Such patients usually have spastic bladders that are of low capacity and cause a great amount of lower-abdominal cramping and even pain deep into the rectum.

TRAUMATIC PROBLEMS

Traumatic lesions that cause lower-abdominal pain may be obvious, but it must be remembered that whenever urine is extravasated while the patient is conscious, abdominal symptoms, rigidity and severe pain are sure to develop. Some of the unusual phenomena that will cause urinary extravasation are severe lacerations in the vagina that involve the bladder. I recently came across an article in the journals which told of a lady who had fallen in the street and had sat down on a hard object. It penetrated the vagina and fornix, lacerated the bladder and went on into the peritoneal cavity. She developed symptoms of severe lower-abdominal pain, and after surgical closure and drainage, she got along fairly well. Straddle injuries will cause urinary extravasation either in front of or distal to the urogenital diaphragm. These are be-

coming more and more common in consequence of the increasing hazards of the American way of life. We must remember that in a patient with a broken pelvis, there commonly is ileus, whether the urinary tract is involved or not. But if the urethra is torn, this may be missed, and the patient may become more and more distended, and have more and more pain. I recite this for the doctors who may have patients who inexplicably go sour after a ruptured or broken pelvis.

Renal vein thrombosis is rare. It has most often been discussed in pediatric literature, but occasionally it can occur in adults. It produces severe pain in the area of the kidney and may radiate down into a lower quadrant. I just reviewed a few articles on this problem and found that in two of the older reported cases the presenting complaint had been severe lower-abdominal pains. These patients underwent extensive diagnostic work-ups before the diagnosis of renal-vein thrombosis was made.

SUMMARY

In closing, I should like to say once again that people with lower-abdominal pain should have a minimal urologic work-up, consisting of a good urinalysis, two-glass specimen; a palpation of the prostate, if the patient is a male; a KUB film; and an intravenous pyelogram. If these are done, we can find answers for many otherwise troublesome problems in the diagnosis of lower-abdominal pain.

Common Injuries of the Lower Urinary Tract

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CHICAGO, ILLINOIS

Early recognition and proper treatment of trauma to the lower urinary tract will reduce the morbidity and possibly avoid mortality. The presence of multiple injuries and the physician's preoccupation with relieving shock may contribute to the oversight of urinary-tract injuries. Routine and systematic examination can eliminate errors of omission. Blood at the urethral meatus is obvious. Voided urine is examined for blood and other pathologic elements. Inability to void demands immediate catherization so that a specimen of urine can be obtained for examination. Inability to pass the catheter is *prima-facie* evidence of urethral injury. These fundamental facts should be uppermost in the mind of every emergency-room physician.

Intelligent management of urethral injuries depends upon knowledge of the basic anatomy of the parts involved and of the fascial planes of the region. The urogenital diaphragm is composed of two parallel layers of dense fibrous tissue about 1 cm. apart. The fibrous structure is fixed firmly to the bony pelvis along each descending ramus from the symphysis pubis down almost to the ischial tubercles. The male urethra penetrates the urogenital diaphragm perpendicularly near its center. The urogenital diaphragm delimits the extent of anterior and posterior urethral injuries. Trauma of the urethra distal to urogenital diaphragm is regarded as anterior urethral injury. Trauma of the urethra proximal to the superficial layer of the urogenital diaphragm is regarded as a posterior urethral injury.

Dr. Graf is a staff member of the urology services at St. Luke's Hospital and Cook County Hospital, Chicago. The information contained in the paper is based on material from the Urological Services of Dr. Wm. J. Baker and Dr. Edwin C. Graf.

ANTERIOR URETHRAL INJURIES

Injuries of the anterior urethra are incurred as straddle injuries, and they vary considerably in severity. The force against the perineum may cause a contusion of the urethral mucosa, or when severe, may rupture the urethra completely by pressure against the symphysis pubis or against the tough urogenital diaphragm. Figure 1 shows the anatomy of the limiting fascial membranes. Minimal trauma of the urethra may cause a few drops

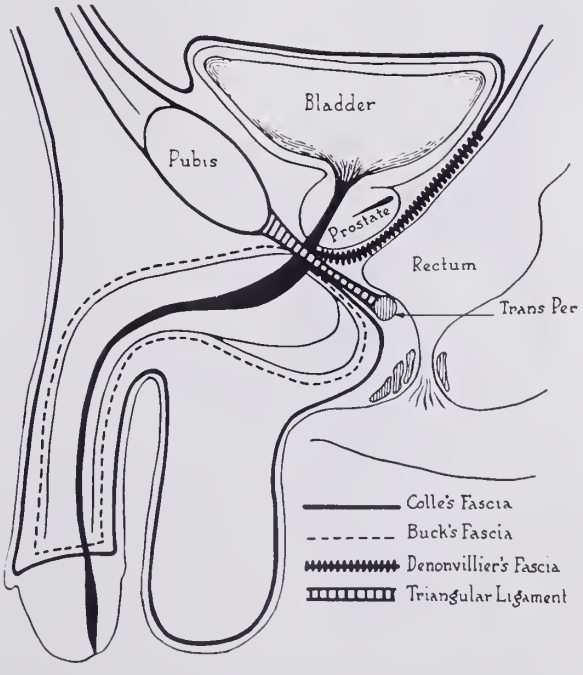


Figure 1. Diagrammatic sketch of the fascial planes.

of blood to appear at the urethral meatus and produce some edema of the urethral mucosa. No impediment to urination is noted. Greater degrees of force will cause rupture of the urethral mucosa and tunica albuginea of the corpus spongiosum. Blood and extravasated urine will collect and be confined within Buck's fascia, which surrounds the penile bodies. This extravasation causes swelling of the penis. Urethral bleeding and retention of urine are noted. Violent trauma will cause rupture of Buck's fascia and allow extravasation of blood and urine, and consequent infiltration of the tissues of the perineum, scrotum and penis. Colles' fascia then becomes the limiting membrane. Figure 2 depicts the extent of the extravasation in a complete rupture of the urethra. Colles' fascia is firmly adherent to the posterior shelving border of the urogenital diaphragm, and it prevents further posterior and deep spread of the extravasation. Colles' fascia is continuous with Scarpa's fascia of the abdominal wall. This continuity allows the extravasated blood and urine to infiltrate to the abdominal wall. Attachment of Scarpa's fascia to the inguinal ligament prevents a spread of the infiltration to the thighs.

The treatment of injuries of the anterior urethra will vary according to the extent of the trauma. Minor trauma to the anterior urethra requires simple catheter drainage and ice packs to the perineum. A simple hematoma of the perineum may require incision and drainage. Tears of the urethral mucosa will cause variable degrees of extravasation, as has previously been explained. A catheter will be obstructed at the point of injury. Surgery is imperative to drain the extravasated blood and urine, and to repair the urethra. The patient is placed in the lithotomy position. An external urethrotomy is performed, and an urethrotomy catheter is passed to the bladder to divert the urine. A second catheter may passed through the urethral meatus to splint the urethra. Fascial planes are thoroughly drained as far as the extravasated blood and the urine have extended. Marked distortion and sugillation of the perineal tissues may cause difficulty in the identification of the torn urethra. Credé pressure on a distended bladder may cause a spurt of urine from the torn urethra. Expression of prostatic fluid by digital pressure on the prostate gland may aid in the identification of the proximal urethral remnant. One should resort to suprapubic cystotomy and retrograde sounding to identify the proximal urethral remnant, rather than to probe indefinitely in a traumatized perineum. Every effort to restore the continuity of the urethra will help to minimize post-traumatic scarring. A single suture to join the dorsal aspects of the torn edges of the urethra may be all that is surgically possible.

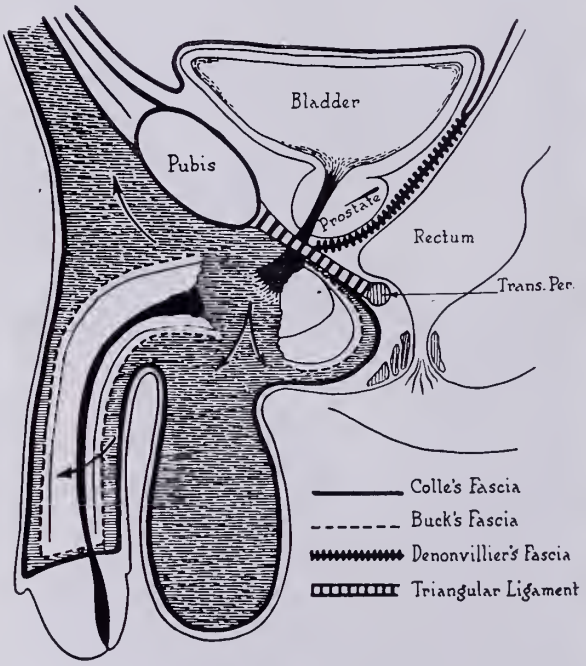


Figure 2. Diagrammatic sketch of the course of an extravasation after rupture of anterior urethra.

POSTERIOR URETHRAL INJURIES

Fractures or dislocations of the pelvic bones may cause shearing of the urogenital diaphragm and the membranous urethra as it penetrates the



Figure 3. Multiple incisions to drain the farthest extent of an extravasation after injury to the anterior urethra.



Figure 4. Multiple fratures and dislocations of the bony pelvis associated with rupture of the posterior urethra.

urogenital diaphragm. The extravasated urine and blood collects above the urogenital diaphragm in the periprostatic and perivesical fascial spaces.

This is a deep extravasation, and it follows an injury to the posterior urethra. The patient has no evidence of perineal trauma, except in those rare instances when there are injuries to both the anterior and posterior urethras. Shock may be present. The bladder may or may not be distended. The patient is unable to void. Blood may issue from the urethral meatus. Suprapubic tenderness is present early. Brawny induration of the lower abdomen is a late finding. A catheter will be obstructed at the membranous urethra, or the catheter may enter the periprostatic fascial spaces. Figure 4 is an x-ray showing multiple fractures of the pelvis which were associated with injury to the posterior urethra. The injury must be repaired by the suprapubic approach, with the patient in the supine position. The method of repair is shown in Figures 5, 6, 7 and 8. The continuity of the urethra is reestablished at the point of rupture, as is shown in Figure 5. The tip of the sound which is passed distally through the posterior urethra and the tip of the sound which is passed through the anterior urethra are manipulated until they touch. The next figure (No. 6) shows the anterior urethral sound passed to the lumen of the bladder. A soft-rubber catheter is affixed to the sound, and the sound is withdrawn. The rubber catheter becomes a splint in the tramatized urethra. Figure 7 shows the cystostomy catheter, which is a safety device in the event that the splinting urethral catheter drains poorly. Adequate drainage of extravasated urine and blood is accomplished by placing the drains to the level of the urogenital diaphragm. Figure 8 shows the tough scar which replaces the torn urethra if the splinting catheter is neglected and mere suprapubic cystostomy is done to divert the urinary stream. This scar will cause persistent suprapubic urinary drainage after the cystostomy catheter has been removed. Secondary repair is difficult.

POSTOPERATIVE MANAGEMENT OF ANTERIOR AND POSTERIOR URETHRAL INJURIES

The splinting catheters are left in place for 10 days. The healing urethra is sounded each week to prevent scarring. The interval between soundings may be increased as the physician becomes convinced that the tendency to scar replacement has been dissipated. Sounding is repeated at intervals of no longer than six months during many ensuing years, for there is a danger of late contracture and stricture. Minor injuries of the anterior urethra are also entitled to this regime. Impassable strictures have developed months after seemingly insignificant injuries, when sounding has been neglected. Full use of urinary antiseptics minimize the urinary infection which is present in all cases. Attention to fluid and electrolyte balance is essential. Proper nutrition and a normal hemo-

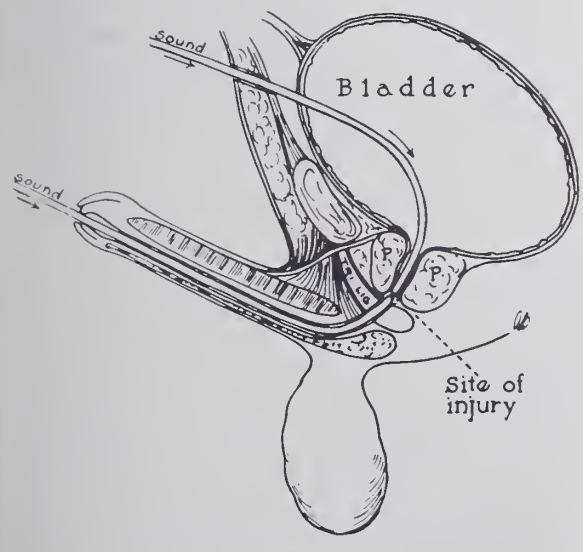


Figure 5. Diagrammatic sketch showing sounds which are manipulated to establish the patency of a rupture of the posterior urethra.

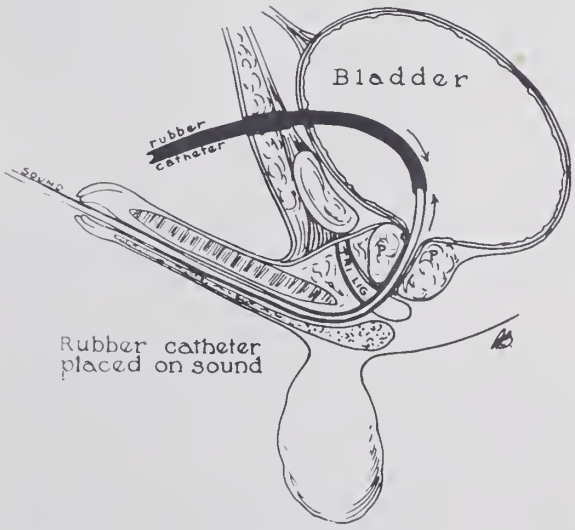


Figure 6. Diagrammatic sketch showing the manner of placing the urethral splint in the realigned posterior urethra.

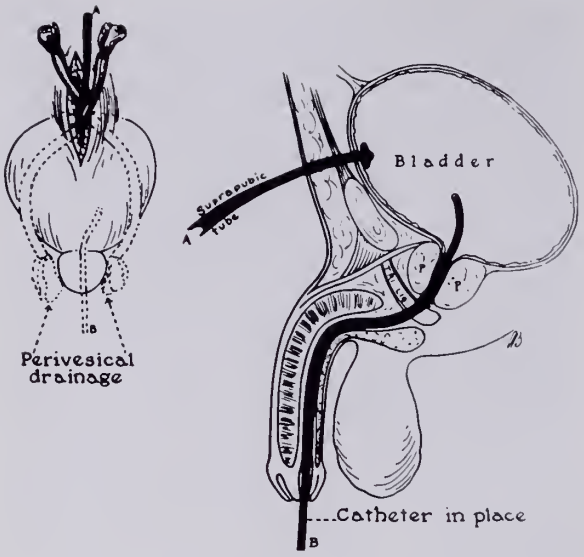


Figure 7. Diagrammatic sketch of the completed operation. The splinting catheter is in place. The cystostomy catheter is in place. The periprostatic and perivesical spaces are drained.

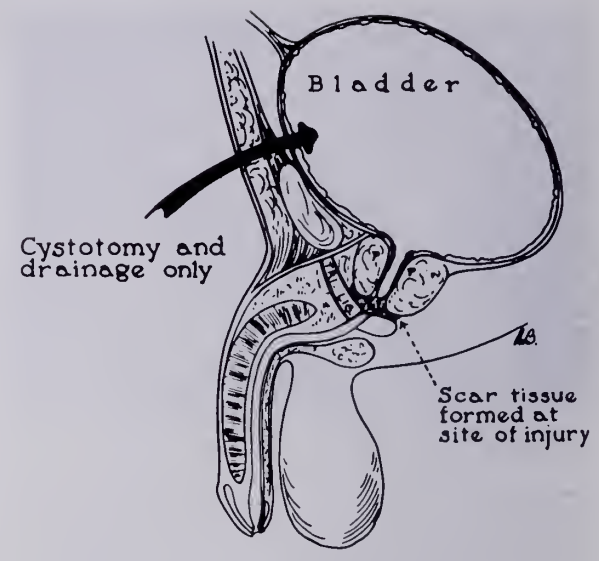


Figure 8. Diagrammatic sketch showing the scar formation which follows if the urethral splint is omitted.

gram insure good healing. Prostatovesiculitis and epididymitis are common complications and must be astutely treated before the urine will become normal. Impotence and sterility are the rule following injury to the anterior or posterior urethra, although there have been exceptions.

URINARY BLADDER INJURIES

Bladder distention at the time of injury is important. A collapsed, empty bladder is relatively immune to forces and strains incurred in severe accidents and pelvic fracture. Minimal trauma may cause remarkable tearing of a greatly distended bladder.

The diagnosis of rupture of the bladder may be obvious in the presence of the classical history, symptoms and signs. Inability to void following an accident is presumptive evidence. A catheter may be passed with ease into the bladder. This fact indicates the integrity of the anterior and posterior urethras. A few drops of blood or a small amount of bloody urine indicates rupture of the bladder. A large amount of bloody urine indicates an intact bladder, but suspicion of upper urinary-tract injury must then be considered. The presence of shock may minimize the usual findings of lower abdominal tenderness and/or rigidity. The tenderness and rigidity of the lower-abdominal musculature becomes progressively worse each ensuing hour. The rupture of the bladder may be either extraperitoneal or intraperitoneal. The signs and symptoms are unduly exaggerated if the rupture is intraperitoneal. The pronounced rigidity and tenderness always causes suspicion of other intraperitoneal injury.

Many aids have been suggested to assist in the diagnosis of bladder rupture. Among them, one can mention (1) cystoscopy; (2) injection of air into the bladder; (3) injection of measured amounts of sterile saline; and (4) cystogram. The cystogram is the only modality which is considered a safe procedure and which is specifically diagnostic. From 10 to 12 oz. of a sterile, radiopaque medium is instilled through the indwelling catheter, and anteroposterior and oblique x-rays are made. The radiopaque medium is then drained off, and further x-ray films are made. Smaller amounts of medium may fail to demonstrate the rent in the bladder wall, for perivesical fat, bowel or omentum may seal off the rent unless the bladder has been adequately distended. A symmetrical distention of the bladder and a regular, smooth contour are suggestive that the bladder is intact. Figure 9, a reproduction of an x-ray film, shows the diffusion of radiopaque medium beyond the recognized confines of the lumen of the bladder. The medium has collected in the perivesical spaces, and an extraperitoneal rupture of the bladder is indicated. Figure 10, likewise an x-ray film, shows the radiopaque medium diffusing into the peritoneal cavity. The configuration of the medium is known as a "sunburst," and is pathognomonic of intraperitoneal rupture of the bladder.

Surgical correction should be postponed until the patient's condition has stabilized. The four principles of repair of a ruptured bladder are: (1) Divert the urine; (2) Drain the extravasated urine; (3) Establish hemostatis; and (4) Repair the laceration.

The approach to the ruptured bladder lacks the niceties of the usual bladder surgery. The suprapubic tissues are edematous and hemorrhagic. Brisk bleeding from the fractured pelvic bones clouds the surgical field. Fascial planes are indistinct. The bladder is collapsed and lies deep in the



Figure 9. Cystogram showing the diffusion of the radiopaque medium. Extraperitoneal rupture of the bladder.



Figure 10. Cystogram showing the intraperitoneal diffusion of the radiopaque medium in rupture of the bladder.

true pelvis. A cystostomy catheter serves to divert the urine. Drains must be placed to the farthest extent of the extravasation. Bleeding from the bladder tears is never a great problem. Bone wax will effectively control bleeding from cancellous pelvic bones. Sutures to close the bladder rent should not include the mucous membrane of the bladder. Drainage of the peritoneal cavity is not essential in intraperitoneal rupture of the bladder if the extravasated urine is aspirated before the peritoneum is closed.

Postoperative management after the repair of the ruptured bladder follows the same principles as those used in routine cystostomy. Failure of the suprapubic sinus to close promptly may be caused by obstructive prostatic lesions at the bladder outlet. Surgical correction of the bladder-neck obstruction must follow. Epithelialization of the suprapubic sinus tract may cause a persistent urinary fistula. Excision of the fistula and closure of the bladder may then be necessary.

SUMMARY

The clinical signs and symptoms of lower urinary tract injury have been recited. Revelant anatomy has been reviewed, and principles of management have been presented. Iatrogenic injuries have been omitted from the discussion.

Mayo Clinical Reviews

On April 14, 15 and 16, in Rochester, Minnesota, staff members of the Mayo Clinic and the Mayo Foundation for Medical Education and Research will again present a program of lectures and discussions on problems of current interest in general medicine and surgery.

Up to 21 hours of Category I credit may be obtained by American Academy of General Practice members who attend all of these meetings.

There are no fees for this program.

If past experience is any indication, it is probable that more doctors will wish to attend than there are accommodations for. Last year's registration was in excess of 500. Thus, registrations should be made early. Address Mr. R. C. Roesler, Mayo Clinic, Rochester, Minnesota.

Psychic Pain

PAUL M. KERSTEN, M.D.

FORT DODGE

At first glance, it might seem that a psychiatrist does not deal with pain *per se*. Closer scrutiny reveals that such is not the case. The psychiatrist deals in a different way with the pain of his patients, and perhaps the pain which brings patients to him may be of a different quality from that which brings patients to see other physicians. It is still, none the less, pain—the main stimulus which brings any patient to any physician. To the psychiatrist the pain itself may be described by the patient in different terms, or it may be indirectly expressed. Yet, however expressed, it still represents a state of discomfort—mild, moderate or severe—and the psychiatrist's job as a physician resolves itself into understanding as clearly as possible the meaning of the symptoms, and the words and symbols used by the patient in describing them. The physician, interested in the total man, concerns himself with the loves, hates, strivings, accomplishments, frustrations, failures and impulses, plus the total functioning of the physiologic machine, the body. It is the interaction of all these variables which makes up human personality. An imbalance in any of these elements can lead to disturbances in function, in behavior—in other words, to sickness. This sickness, in turn, affects the psychological and physiological functioning of the biologic unit.

The psychiatrist can view the problem of pain in three ways. He can concern himself with the psychological effects of somatic pain—the effect of somatic pain on the psychological functioning of the person. He can separate away some types of pain as being the somatic expression of a purely psychological disturbance. He can concern himself with the various types of pain which exist on a psychological level alone, wherein the primary expression of pain itself is in the conscious and unconscious psychological life of the individual, with concomitant and varying degrees of physiological disturbances as an accompaniment.

As physicians, we are aware of the profound psychological disturbances which often accompany a somatic illness. A febrile delerium is an example. We have all seen patients regress to earlier modes of adjustment—to more infantile personality functioning—under the stress of pain. We know that this type of reaction varies from person to person under identical degrees of stress, depending upon the premorbid strengths and weaknesses in the individuals' personalities. We have seen seemingly mature, capable, secure and effective people become whining, complaining, demanding, irritable, fear-ridden patients under the impact of somatic pain or the threat of it. We have seen some in whom a seemingly small stimulus has led to a profound psychological change. We have seen others in whom an endless amount of pain does not seem to disturb personality functioning to any significant degree, and still others who give up the battle completely and die. Examples of these types of emotional and personality reactions to pain are readily available to any physician. Many provocative questions can be raised apropos of such observations, but such are not be the main theme of this presentation.

We can view the phenomenon of pain in another way and consider those painful somatic expressions which are the direct consequence of a psychological disturbance, or to put it another way, which are the compromise that the total personality makes in its effort to attain a degree of relative comfort in the face of disturbing psychological influences. In the field of abdominal pain, two striking examples are relatively common. We have all seen patients suffering discomfort from peptic ulcers. We have seen them in severe pain when such an ulcer has ruptured and threatens to bring death. Another example of a basically emotional problem which causes profound physiologic disturbance leading to somatic pain is chronic ulcerative colitis. We do not know enough about human personality, its development and functioning in specific individuals to understand why some people express emotional conflicts in the functioning of one specific organ, and others in another organ. Much research needs to be done before the problem can adequately be clarified. We do know, however, that emotional problems and their deviate expression somatically represent an economical adjustment technic for the biologic unit, even though such an expression can lead to suffering and pain, psychologic disturbance, structural change and even, ultimately, to death itself. But though this too is a provocative subject, it is not of main concern in the topic with which I shall deal.

I should like to take up and briefly discuss the third way in which a psychiatrist has an interest in pain. I am speaking now about the subject of psychological pain itself, and I should like to limit my comments to it, though I can by no means cover the topic. I shall concern myself with a brief discussion of only three types of psychological pain.

ANXIETY

The foremost and most common example of psychic pain is anxiety—a feeling of discomfort, of dis-ease. There are all degrees of anxiety, and anxiety can be produced by any threat, internal or

external, to the integrity of the total personality of the person. There are positive aspects to anxiety, for it can lead to healthy adjustment technics designed to relieve or remove a threatening influence. Anxiety itself is a signal or indicator announcing that something is amiss within or without the personality. If the threat is external, the person must be conscious of it and have anxiety about it if he is to make the necessary adjustments and bring about an anxiety-free equilibrium. A graphic example of a person's reaction to a consciously perceived external threat can be seen in the psychologic and physiologic experiences of soldiers in battle. Many of you will be able to recall your own anxiety in such a situation. Depending upon the strengths of their individual personalities, different people react to such an extreme threat in different ways. The reaction can range from a clear perception of the situation and the resulting anxiety all the way to complete breakdown and dissolution of the integrity and functioning of the psycho-biologic unit. The anxiety can be bound somatically—an economical reaction—and can cause hysterical paralyses or the more bizarre astasia-abasia or camptocormia.

I have mentioned that a personality can be threatened by internal psychological forces which can lead to anxiety. In everyday medical practice, this common cause of anxiety is seen in a variety of ways in our patients. It arises out of the fact that we human beings have two divisions in our psychological make-up. A small part of our total psyche is known as the conscious mind. A much larger part of our psyche is known as the unconscious. The unconscious is the storehouse for the energy of primitive instincts—emotions and urges which constantly seek expression, gratification and satisfication. They are just as constantly being held in check, filtered out and modified into socially acceptable expressions by another personality element known as the ego. The ego is that part of the personality which stands between consciousness and unconsciousness, and which constantly evaluates external reality, on the one hand, and the pressures and demands of the unconscious, on the other, allowing some of the latter to filter through to consciousness, changing others and then allowing them to pass, and totally rejecting still others. Ego is modulated by the dictates of a conscience, the super ego, which has both conscious and unconscious parts. If the ego is too much threatened, then anxiety ensues in the individual's consciousness. The anxiety that is perceived is the same, regardless of whether the threat is external or internal. Though it is uncommonly regarded as such, the most severe human suffering can result from such an internal threat to the ego. Such pain can be of an order equal to the most severe physical pain known to man. In anxiety, not only does the person experience a special type of unpleasant feeling, but his body reacts as well. The pupils dilate, the hair rises, "goose flesh" develops, moist palms and pallor can be observed, trembling, and tachycardia and perhaps loss of sphyncter control can follow.

Let us now consider a practical example. The ego of a postpartum woman is being threatened by unconscious hostile, aggressive and destructive impulses toward her newborn child. This patient, shortly after delivery, presents herself to you with symptoms and signs of anxiety, plus numerous fears—fears of knives, fears that something catastrophic will happen to her child. She is not aware of her unconscious impulses as such, but she is expressing them indirectly through her phobic phenomena and her fear of an unknown harm which might befall her child. She is in the grip of a severe unconscious conflict and suffers a high order of psychic pain. On the one hand, she dearly loves the new baby, yet on the other hand and at the same time, she has these unconscious destructive impulses toward it. In psychiatric jargon, she is said to have ambivalent feelings toward the child, and she is a fit candidate for psychotherapeutic treatment.

This type of conflict can exist in all degrees. The mother could express her ambivalence by overprotecting the child. In reality, she would be overprotecting the child from her unconscious self. There are many tragic instances where the ego no longer is able to restrain the unconscious impulses, and they gain expression in the murder of the child—a sad outcome all too often seen in cases of postpartum psychosis. Many patients in this type of quandry express numerous somatic complaints, particularly ones referable to their abdomens and the functioning of their gastrointestinal tracts. Nausea and vomiting, or diarrhea with abdominal distress is commonly seen.

GUILT

Let us turn our attention to a second type of psychic pain—guilt. At this point I shall not concern myself with a conscious sense of guilt, but shall comment only on that which results from an unconscious conflict. Guilt reactions are commonly seen by all physicians. One of the most common psychiatric entities is involutional melancholia—basically an unconsciously determined guilt reaction. All depressions, regardless of the age at which they appear, are the result of conscious or unconscious guilt. Hostility and aggression from the unconscious is turned upon the individual, and the resulting picture is that of a depressive reaction. Somatic delusions are commonly seen in this type of reaction. In involutional depressions, they often take the form of extreme complaints without organic basis, referable to the functioning and structure of the gastrointestinal tract. Complaints of abdominal pain can be prominent.

To see more clearly how this process acts, let us return to the case of our postpartum patient. Many such patients, along with their phobic phenomena and anxiety, express varying degrees of depressive

symptomatology as a result of the activity of the unconscious portion of the super-ego—the conscience—which literally flails the ego. This unconsciously determined self-punishment is no more vividly seen than in the depressed patient, unless it could be in such a patient who inflicts death upon herself. Suicide can be, and often is, the end result of such super-ego punishment of the individual, and is an imminent possibility in any depressed person. This, too, is an oft-observed outcome in cases of postpartum psychosis. The psychic pain suffered in such instances is intolerable, and self-inflicted death is the preferred solution.

LONELINESS

The last type of psychic pain that I should like to mention is loneliness. Rarely is loneliness considered a form of pain, yet it is most devastating to the people who suffer from it. The world is crowded with people who are shy, withdrawn and schizoid—who do not have and never have had the ability to form firm and meaningful human relationships. Long-forgotten hurts suffered during early years have caused them to be fearful of human relationships. Oftentimes they come to the physician with a variety of vague symptoms. These complaints, lacking a clear organic basis, should be regarded by the physician as constituting their "ticket of admission." It admits them to the physician's office, where troubled and lonely individuals can find sanctuary, acceptance, understanding and some semblance of human relationship to fill the vast, empty void which they feel is within themselves. The physician can render a valuable service by trying to understand the phenomenon which each such "ticket of admission" represents.

Many patients seek only simple reassurance. Many more seek a human relationship, and use this disguised symptom language to express their need. If told after a complete physical examination, "Nothing is wrong with you," they will feel rejected, hurt and lonelier than ever. Many will shop further; many others will return repeatedly with increasingly bizarre symptoms. Instead of saying, "There is nothing wrong with you," thus denying the validity of the "ticket of admission" which the patient has presented, how much better it would be to say, "Though I can find nothing organically wrong with you, I am still aware that you are in discomfort. Perhaps you can tell me how things in general are going for you." This is a most meaningful opening comment, for it allows the lonely person to move as close as possible. It makes it possible for the physician to begin using his most valuable therapeutic tool—himself as a person—in the treatment of this most common, yet generally unrecognized, form of pain.

SUMMARY

In summary, I should like to point out that I have given you a brief description of the "psychiatric point of view" of pain. The phenomenon of pain itself has been delineated in three different ways. Purely psychic pain has been described and briefly discussed, and the somatization reaction has been mentioned in this context. The dynamics of human personality have been touched upon as a background for a discussion of anxiety, guilt and loneliness—examples of psychic pain. Finally, a specific suggestion has been given as to how the needs of patients can be better met.

Short Courses at Kansas City

During this month, the University of Kansas is to present three postgraduate short courses for physicians at its medical center in Kansas City. All three are designed to suit both the general practitioner and the specialist, and members of AAGP will receive Category I credit for attendance.

At the Pulmonary Disease Clinic which is to be held on Monday and Tuesday, January 13 and 14, the guest instructors will be Dr. Kenneth T. Bird and Dr. Edward A. Gaensler, of Harvard, and Dr. Gardner Middlebrook, of the University of Colorado. The fees are $17.50 for one day and $30 for two.

On Wednesday and Thursday, January 15 and 16, a conference on gastroenterology will feature three guest speakers, Dr. Alvin J. Cummins, of the University of Tennessee; Dr. Julian M. Ruffin, of Duke University; and Dr. Maurice M. Stauffer, of the Mayo Clinic. The fees are the same as for the previously mentioned short course.

A course in surgery will be offered from Monday morning, January 20, through Thursday noon, January 23. The guest lecturers are to be Dr. Walter J. Burdette, of the University of Utah; Dr. Robert W. Buxton, of the University of Maryland; Dr. C. Gardner Child, III, of Tufts; Dr. Warren H. Cole, of the University of Illinois; Dr. J. Deryl Hart, of Duke; Dr. Herbert R. Hawthorne, of the University of Pennsylvania; Dr. William D. Holden, of Western Reserve; Dr. William V. McDermott, Jr., of Harvard; Dr. K. Alvin Merendino, of the University of Washington, Seattle; Dr. George E. Moore, of the Roswell Park Institute, Buffalo; Dr. Carl A. Moyer, of Washington University, St. Louis; Dr. Reed M. Nesbit, of the University of Michigan; Dr. John W. Raker, of Pennsylvania Hospital, Philadelphia; Dr. John A. Schilling, of the University of Oklahoma; Dr. Edward S. Staffort, of Johns Hopkins; and Dr. John D. Stewart, of the University of Buffalo. The fees for one, two, three and four days are, respectively, $17.50, $33, $45 and $60.

To each of these courses, the fees will be waived for internes and residents presenting letters of introduction from their hospital superintendents.

A Consideration of Dysphagia

CYRUS L. BEYE, M.D.

SIOUX CITY

PATIENTS NOT INFREQUENTLY complain of dysphagia, and too often this important symptom is overshadowed or masked by other difficulties, especially those of a pulmonary or upper-gastrointestinal nature. Psychosomatic dysphagia is common, but nevertheless, a complaint of difficult swallowing warrants a full investigation. It is superfluous, perhaps, to say that the work-up should include a thorough history and physicial examination as well as radiographs of the chest, esophagus and stomach. Unfortunately, esophageal disease in its incipiency is characterized by such minor difficulties that when dysphagia appears as a symptom, a serious difficulty often exists. A few of the common lesions will be considered briefly.

DIVERTICULA

Pharyngo-esophageal diverticula were first described by Ludlow in 1764. They constitute a disease of later life, one that is three times as common in the male as in the female. A sac is formed in a triangular space (Killian's dehiscence) in the posterior pharynx. This space is bounded by the oblique fibers of the inferior esophageal constrictor above, and by the transverse fibers of this muscle (sometimes separately designated the cicopharyngeus) below. The sac that is formed lies between the prevertebral and the pretracheal fascial layers, and is thus in direct communication with the posterior mediastinum. In about 75 per cent of patients, the sac courses to the left. As the sac enlarges, it becomes more dependent, and it eventually receives a portion of the pharyngeal contents that should stay in the true esophageal lumen. This is the stage at which the patient seeks medical attention, for in addition to experiencing dysphagia, he is constantly regurgitating saliva and bits of food. Moreover, he may have developed pulmonary symptoms due to nocturnal aspiration of the contents of the diverticulum.

These lesions can usually be diagnosed by barium swallow, but the radiologist needs to be alerted to the possible diagnosis. Surgical exposure is usually from the left through a transverse incision at the cricoid level or an oblique incision along the anterior border of the sternocleidomastoid muscle. The sac must be mobilized very gently, especially in the region of its neck, where it is easy to tear or otherwise injure the adjacent esophagus. The mucous membrane is repaired, following amputation of the sac adjacent to the esophagus, with fine, interrupted catgut, and the muscle layer is reconstituted with silk. The posterior mediastinum is drained. This one-stage procedure has largely replaced the two-stage operation that was highly popular in pre-antibiotic days.

Symptomatic diverticula at the level of the tracheal bifurcation are very uncommon. Surgical therapy is usually occasioned by fistulization with the tracheo-bronchial tree.

Epiphrenic diverticula, likewise uncommon, are repaired—if symptomatic—by means of open thoracotomy.

HIATUS HERNIA

Approximately 25 per cent of patients operated on for hiatus hernia have dysphagia as a presenting complaint. In some cases it may be due to pressure on the esophagus from the adjacent herniated stomach pouch, but far more commonly the mechanism is a co-existing reflux esophagitis. For this reason, it is very important to examine the lower esophagus endoscopically prior to surgery. Likewise, a careful search should be made for symptoms of peptic ulcer. An analysis of the gastric acidity is indicated. The so-called hiatus hernia may be the result of esophagitis due to inflammatory foreshortening of the lower esophagus. Such individuals usually require more than a conventional hernia repair. The repair of a hiatus hernia should not be undertaken until one is sure that the symptoms will be relieved by the operation. Co-existent disease of the upper abdomen as well as coronary artery disease may be the real cause of distress and may preclude a satisfactory result. The transthoracic approach is probably easier of accomplishment, but it has the serious drawback of limiting thorough abdominal exploration.

ESOPHAGITIS

In Great Britain, esophagitis is said to be the most common cause of dysphagia. It occurs when gastric juice comes in contact with esophageal mucosa. A large number of these patients are victims of the so-called "ulcer diathesis." The history frequently reveals episodes of vomiting (from other causes such as cholecystitis or alcoholism), previous illnesses in which a gastric suction tube was used, and of course, sliding esophageal hiatus hernia. The possibility of aberrant gastric mucosa in the lower esophagus is an attractive etiologic theory, but is probably of no real significance. Operations in which the cardiac mechanism of the stomach has been disrupted (i.e., the Herovsky procedure for achalasia) are certainly a definite etiology. The lesion begins as an intense inflammatory reaction involving the entire esophageal wall, with occasional ulceration. If it is unrelieved, fibrosis and esophageal stenosis supervene.

Many surgeons have advocated a procedure consisting of either of two main attacks—the ablation of the acid peptic gastric factor or excision of the strictured area—or a combination of them. But there are many of these patients whom the surgeon wishes were back in the hands of the medical therapist when the results of his knife-wielding have become manifest. At any rate, it is probably safe to say that surgery should be reserved for those cases which are completely refractory to bouginage and intensive medical treatment, including hospitalization and so-called "ulcer management." The British surgeons who have had tremendous experience with this disease seem inclined to be increasingly conservative as regards definitive surgery for this disease.

CARCINOMA

Esophageal carcinoma continues to be a fatal disease, despite recent advances in our understanding of body metabolism, blood replacement therapy, antibiotics and anesthesia. Extensive surgical procedures eventuating in a high morbidity and mortality would seem undesirable when the result can be no more than palliative. Preoperative assessment of operability and resectability become of paramount importance. Painstaking endoscopy of the esophagus and especially of the tracheobronchial tree, and perhaps planigrams of the mediastinum may reveal signs of inoperability. A careful search for enlarged lymph nodes in the neck and axillae should be made. The best results are obtained with lower esophageal lesions, and many of these represent gastric malignancy invading the lower esophagus. It should be remembered that lesions of the middle third and higher are often radiosensitive.

The restoration of a patient's ability to swallow is in itself a worthwhile palliative achievement. This result frequently can be achieved endoscopically by passing a small polyethylene catheter past the lesion. The insertion of indwelling tubes through the area of involvement, either endoscopically or at open surgery, will sometimes give remarkable palliation at much less risk than would be involved in an attempted resection. The great majority of patients with esophageal carcinoma either are unsuitable candidates for surgery or develop early recurrences following operation. The palliation of these unfortunate individuals remains a challenge.

FOREIGN BODIES

Foreign bodies which have lodged in the esophagus should not be expected to pass spontaneously. The history is infrequently obscure, but an occasional patient who complains of dysphagia will fail to remember ingesting a foreign body. In most instances, the diagnosis can be made by means of an esophagram. It is probably safer to use such a medium as Diodrast or Lipiodal if there is the slightest question of perforation. An endoscopic attempt at removal should be made initially, almost without exception. In very early foreign-body impaction, with esophageal perforation, it may be safer to proceed directly to open thoracotomy, with foreign-body removal, esophageal repair and pleural drainage. Perforations are usually slow in developing, however, and a certain amount of walling-off will usually ensue. Following endoscopic removal, parenteral feeding, large doses of antibiotics and general supportive care will usually alleviate any complicating inflammatory process. Unresolving mediastinal infection, pleural or bronchial involvement usually requires surgical drainage.

ACHALASIA

The etiology of this fascinating disease is by no means clear-cut. The history is characterized by onset at an early age, with long periods of remission and exacerbation. Concomitant disease of the gastrointestinal and biliary tracts is noteworthy. Whether the underlying fault is in the esophageal propulsive mechanism or in the complicated "cardiac sphincter" is unsettled. Two points are important. There will be a few cases of upper gastric malignancy that may simulate achalasia radiographically and be undectable endoscopically. This possibility should always be considered in the older patient with a short history. When the diagnosis is definitely established, initial attempts at therapy should include several dilatations with the Politzer bag or some similar device. A very small number of these patients will require surgery. Procedures which destroy the cardiac sphincter mechanism are doomed to failure. The result is more than likely to be worse than the original disease. For this reason, the Heller procedure or cardiomyotomy (which, strangely enough, was first described in 1913) has again become the procedure of choice. To be effective, this operation should be done while the esophagus is still in the fusiform stage. When the diseased esophagus has attained a huge size, with a sigmoidal configuration and considerable peri-esophageal inflammation, the procedure is more difficult, and the results are not so predictable.

SUMMARY

In summary, the diagnosis of the etiology of dysphagia demands a certain amount of alertness on the part of the physician. The treatment requires an aggressive approach, tempered by conservatism.

REFERENCES

1. Allison, P. R.: Observations on conservative approach to non-malignant lesions at cardia. J. Thoracic Surg., **32**:150-164, (Aug.) 1956.
2. Allison, P. R.: Reflux esophagitis, sliding hiatal hernia and anatomy of repair. Surg. Gynec. & Obst., **92**:419-431, (Apr.) 1951.
3. Barrett, N. R., and Franklin, R. H.: Concerning unfavorable results of certain operations performed in treatment of cardiospasm. Brit. J. Surg., **37**:194-202, (Oct.) 1949.
4. Benedict, E. B., and Gillespie, J. E. O'N.: Peptic stenosis of esophagus. Surg. Gynec. & Obst., **98**:494-502, (Apr.) 1954.
5. Harrington, S. W.: Pulsion diverticulum of hypopharynx at pharyngoesophageal junction; surgical treatment in 140 cases. Surgery, **18**:66-81, (July) 1945.
6. Ingram, I. N., and Foster, R. P.: Pulsion pharyngeal diverticula. J. Thoracic Surg., **33**:287-303, (Mar.) 1957.

7. Lahey, F. H., and Warren, K. W.: Esophageal diverticula. Surg. Gynec. & Obst., **98**:1-28, (Jan.) 1954.
8. Mackler, S. A., and Mayer, R. M.: Palliation of esophageal obstruction due to carcinoma with permanent intraluminal tube. J. Thoracic Surg., **28**:431-445, (Oct.) 1954.
9. Negus, V. E.: Pharyngeal diverticula; observations on their evolution and treatment. Brit. J. Surg., **38**:129-146, (Oct.) 1950.
10. Nemir, P., Jr., and Hawthorne, H. R.: Physiologic basis for utilization of esophagocardiomyotomy in treatment of achalasia. J. Thoracic Surg., **28**:247-258, (Sept.) 1954.
11. Parker, E. F., and Jenkins, L. B.: Causes of death following esophageal resection for carcinoma. J. Thoracic Surg., **29**:373-380, (Apr.) 1955.
12. Sweet, R. H.: Repair of hiatus hernia of diaphram by supradiaphragmatic approach; technic and results. New England J. Med., **238**:649-653, (May 6) 1948.
13. Tabor, R.: Discussion of paper by Nemir (see No. 10 in this list).
14. MacLean, L. D., and Wangensteen, O. H.: Surgical treatment of esophageal stricture. Surg. Gynec. & Obst., **103**:5-14, (July) 1956.

Diseases of Iowa Farmers

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The modern-day farmer leads a hazardous life. He is exposed to a variety of infections due to bacteria, viruses, rickettsiae and fungi. Also, he is exposed to a number of poisons which are used as insecticides or for other agricultural purposes. In addition, he is in contact in a rather special way with a number of allergens, in particular pollens and danders from animals. Fungi may attack him either an infectious agents or as allergens.

It seems appropriate, in this connection, to emphasize what an excellent opportunity we have in the State of Iowa for contributing to the health of farmers in the world at large.[1] Ours is a very prosperous agricultural area, in which there is a very specialized and concentrated form of farming. In addition, we have an excellent State College at Ames, dealing in veterinary medicine and other branches of agriculture as well as in engineering. At Iowa City, we have the Institute of Agricultural Medicine at the State University. It is encouraging to note that rural health problems are being attacked by both institutions on a cooperative basis. In addition, a number of projects in this field are under way at private hospitals and VA hospitals in the state.

A number of surveys of the problem have been made or are in progress. Dr. Franklin H. Top, head of the S.U.I. Institute of Agricultural Medicine, has recently drawn attention to the neglect of the health hazards of the agricultural worker;[4] the institute, in cooperation with Iowa State College, is making a study of rural accidents and diseases in the state;[5] and data are being gathered, in particular, on the very prevalent diseases of animals transmissible to man.

Diseases of Animals Transmissible to Man

This last-named group of maladies have been given the title "zoonoses"[2] and are receiving increasing attention. Recently, R. A. Tjalma, D.V.M., and I received a visit from Dr. Benjamin Blood, who is the head of the Pan-American Zoonoses Center that has been established by the World Health Organization in Azul, Argentina, to coordinate the efforts of the various investigators in the different countries who are studying zoonoses. He was interested in learning of the work going on in Iowa.

Why are the zoonoses of such great importance at present? With the control of various human plagues, it has become evident that a great deal of chronic illness—illness that frequently incapacitates but seldom kills human beings—comes from man's close contact with domestic animals. The threat of biological warfare has turned the attention of various national organizations to diseases that can affect both man and animals and which would cause economic chaos during a period of hostilities. I think, however, that the most powerful reason for everyone's interest in the zoonoses is the striking increase that is occurring in the population of animals. In the State of Iowa, where we have 2,500,000 people, there are approximately 10,000,000 cattle and approximately 15,000,000 swine. In addition, we have huge numbers of chickens and turkeys.

Other countries, particularly those in Europe, have been interested in zoonoses for a number of years. France, Germany, Poland, Czechoslovakia, Russia and Scandinavia have active zoonosis research projects.

A notable advance in research in animal diseases has been carried out by Dr. Richard Shope, one of the outstanding alumni of S.U.I. He has worked out a very complex infection cycle of hog flu, showing that it passes from the lung of an infected animal into the eggs of the lung worm, from the eggs into the earth, thence into the earthworm, and from the earthworm back into new swine. Activation of the virus in these eggs in the lungs of the swine is carried out by seasonal changes, or other stress and the actual disease is precipitated when a bacterial infection is superimposed upon this virus infection. The complexity of these cycles of infection indicates to us that there must be much

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more for us to discover in this field. Through further research we no doubt can do a great deal in protecting the health both of animals and of human beings. Dr. Shope holds the interesting theory that swine flu is the pandemic human flu of 1918.

In Iowa the zoonosis that appears to be of particular importance is brucellosis, a disease which is under constant study by the State Department of Health and the State Hygienic Laboratories. The active testing of dairy cattle at Iowa State College is helping to control it in our state. However the problem of brucellosis in swine remains a difficult one, largely because of the difficulties in diagnosing the disease in individual pigs. Advances in methodology will help control this problem.

Rabies is also being studied by these same groups. It has been discovered that bats may be able to harbor the disease without necessarily being sick. From them the disease may spread to skunks, thence to dogs and then to man. This interesting problem is being studied by Dr. Tjalma at the Institute of Agricultural Medicine.

We still have a tuberculosis problem in this state, although Iowa's record compares favorably with those of all the other states in the Union. As a part of the plan for dealing wth this problem, a reciprocal notification system has been established under Dr. Tjalma's direction so that all farmers can be studied if they have been exposed to cattle that have recently reacted positively to tuberculin, and so that studies can be made of cattle that have come in contact with farmers who have been found to have tuberculosis. This program is being sponsored by the Iowa Trudeau Society and the Iowa Tuberculosis and Health Association, two of our voluntary agencies that are helping greatly in the control of the disease in our state.

Psittacosis is probably a bigger problem in Iowa than we realize. A number of recent outbreaks have tended to emphasize this fact. From time to time, tularemia and encephalitis come to trouble us, and an active state veterinary program is of great benefit to us in dealing with these outbreaks.

It appears that in recent years we have been having increasing trouble from fungal infections. Dr. Mary Beth Godfrey has been studying the cases of histoplasmosis that have occurred in this state during the past five years. The causative agent is a fungus which grows in the soil, and therefore histoplasmosis is particularly common in farmers. A few cases of a disease known as cryttococcosis, which affects cows as well as men, have also been occurring in the state and are being studied carefully. Dr. Radcliffe, of the S.U.I. Department of Dermatology, is much interested in the fungus diseases of cattle and domestic pets that are transmissible to man, and he feels that an intelligent approach through epidemiology can prevent their spread.

A problem which has been recognized as prevalent among hogs and cattle in Iowa is leptospirosis. So far, the human cases have not received adequate study. Through a cooperative project recently entered upon by Iowa State College and S.U.I., an intensive search for them has now been started. In this work, two of the local industries are giving us their support, and we are grateful to them. The form of leptospirosis known as Weil's disease, which frequently is characterized by fever, renal lesions and, in about half of the patients, by jaundice, does occur in this area, but it is likely that leptospira pomona is the main culprit in this state. In human beings, the latter produces an aseptic type of meningitis.

A new disease has recently been discovered in Iowa, Q fever. Dr. Tjalma and Dr. R. E. Hodges described its manifestations in animals and in man in the November issue of this JOURNAL.

A LOOK AT THE FUTURE

What is the future in these studies of zoonoses? In the hospitals of this state we have a wealth of recorded detail, and I ask you to look around and see what cases were truly misdiagnosed. It is always a temptation for us to say that this may have been so and so, and to sign it out as such. I think we would benefit ourselves greatly by signing out more cases as undiagnosed disease, thus enabling ourselves at the end of the year to make a survey and perhaps to discover that a new disease has appeared in Iowa. Thus we could contribute not only to the health of our own state but to that of the world. Furthermore, I believe that our State Health Department should have better support, so that it can study outbreaks of such disease and give aid to you and me, the practitioners of Iowa.

A new disease called vibriosis and known to be common in animals has been described in a human case by Dr. Spink, in Minnesota. It is one that seems to cause human abortion, and we should be on the look-out for it in this state. There are opportunities in Iowa for increasing tetanus prevention, and this work can be carried out under a number of auspices, in particular through the Institute of Agricultural Medicine. An interesting disease of cattle called sporadic bovine encephalomyelitis is related at least antigenically to psittacosis and will bear further study. It could be that this also is related to some of our less common diseases in human beings. Recent work by Dr. David Karzan, at the University of Buffalo, has suggested that dog distemper may be a disease of man as well as of animals. This would be interesting to study in Iowa. From time to time toxoplasmosis, a protozoon disease, causes mental deficiency and produces disease in human beings. Recent unpublished work has suggested that animal contact is important in the acquisition[3] of this disease. A new investigation is being developed at S.U.I.

for the study of this interesting but as yet relatively untouched field.

Dr. L. E. January and Dr. J. P. Stoikovic are conducting a pioneer project on heart disease in farmers. Other developments to which we look forward in the improvement of farmers' health are in the field of mental health, an area that is receiving increasing attention in this state. From time to time we are struck by plagues such as the epidemic of anthrax which in 1952 was very prevalent in Ohio, Pennsylvania and Illinois. In addition, the pandemic of influenza may be repeated. It is therefore important that we have in our state the excellent services of the State Hygienic Laboratories, the Bacteriology and Virology Laboratories at the State University of Iowa under Dr. Porter, and the similar laboratories at Iowa State College, in Ames.

It is hoped that through intensive studies of the farmer's health problems, many people may be able to stay in agriculture, the occupation which they know best and the one which they enjoy. Iowa can and will be a leader in the protection of the health of farmers, the individuals who contribute most greatly to its economic welfare.

REFERENCES

1. Leinbach, S. P.: Rural health work in Iowa. J. Iowa M. Soc., **47**:626-628, (Dec.) 1956.
2. Meyer, K. F.: The Zoonoses in Their Relation to Rural Health. Berkeley, University of California Press, 1955.
3. Tjalma, R. A., personal communications.
4. Top, F. H.: Preventive medicine in agriculture. J.A.M.A., **161**:1357-1360, (Aug. 4) 1956.
5. Wardle, N. J.: You're not safe yet. Iowa Farm Sciences, **10**:9-12, 1955.

State University of Iowa College of Medicine

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

On her first admission to this hospital, the patient, an 18-year-old primipara delivered spontaneously at term. The infant was a normal girl. The patient received prophylactic penicillin injections. Her blood group was O Rh negative. No anti-Rh antibodies were found on examination of her serum.

Six years later, hysterectomy and left salpingo-oophorectomy were done in her community hospital for profuse uterine bleeding. The surgical specimen was not examined by a pathologist.

Two years later, at her second visit here, she was admitted to the Urology Department because of severe pain in the right flank. The episode had begun about two weeks earlier with sudden onset of pain in the right upper abdominal quadrant. There was also pain in the right shoulder. She had fever and was treated with antibiotics. Her temperature returned to normal, and she then had a few days of relief. Then once more she sought medical attention for pain in the right lower quadrant, and three bloody bowel movements occurred. Two days before admission here, she awoke at midnight and felt hungry. She ate a snack and had immediate right upper quadrant pain. Referral to this hospital followed.

She appeared pale and lethargic, but was awake and cooperative. The blood pressure was 120/60 mm. Hg. The right leaf of the diaphragm was higher than the left and did not move. There was slight distention of the abdomen, and a mass was palpated on the right side. Muscle guarding was present, and there was rebound tenderness. The bowel sounds were hyperactive. No mass was felt by rectal or pelvic examination.

The urine contained a trace of albumin and three or four red blood cells per high-power field. The hemoglobin was 6 Gm./100 ml. of blood. The white blood cell count was 6,000 per cu. mm. Intravenous urograms showed prompt bilateral function, and the kidneys appeared normal. An x-ray film of the chest showed linear atelectasis in the bases. At fluoroscopy, the right leaf of the diaphragm did not move. An x-ray film of the abdomen showed the small intestine slightly distended by gas, but there were no fluid levels. The liver appeared enlarged. A surgical consultant was asked to examine her. The working diagnosis was "acute surgical abdomen," and an exploratory laparotomy was performed.

The peritoneum was filled with blood. The liver contained large, dark red, friable masses in both the right and the left lobes. There was a similar mass in the spleen. The tumor tissue bled profusely on the slightest manipulation. Needle puncture wounds spurted blood. Because of the profuse bleeding, no biopsy was obtained. Grossly, the lesions appeared to be lymphoma.

During the next few days, more laboratory studies were done. The hemoglobin was 13.8 Gm./100 ml. after the transfusion of nine units of blood. The serum albumin was 3.6 and the globulin 2.5 Gm. 100 ml. The serum electrolytes were normal. Studies in the coagulation laboratory revealed a normal Lee-White clotting time and normal clot retraction. The one-stage prothrombin time and the two-stage prothrombin determination were normal. The accelerator globulin concentra-

tion was normal. The clot size was normal. There was no circulating anticoagulant. The platelet count was 114,000/cu. mm. Since she had been transfused with blood before these studies were done, they were repeated six days later. The results were the same. In addition, a prothrombin consumption test was normal. Aspiration of the sternal marrow showed a cellular marrow with some increase in the monocytes and plasmocytes. A direct Coombs' test was negative. The serum bilirubin was 1.2 mg./100 ml. The sedimentation rate was 18 mm. per hour. The hematocrit was 44 per cent. The erythrocytes began to hemolyze in 0.48 per cent saline solution, and they were completely hemolyzed in 0.28 per cent saline solution. The reticulocyte count was 2 per cent.

After surgery, the clinical diagnosis was lymphoma. Ten doses of 100 roentgens of deep x-ray therapy were given to the epigastric region. The patient was discharged after two weeks' hospitalization to spend a brief interval at home.

The patient was readmitted two weeks later because of anorexia and vomiting. Dehydration was present. The abdomen was distended. The right hemithorax was dull to percussion, and rales were present in the right lung base. The blood pressure was 110/50 mm. Hg. The liver edge was palpable beneath the right costal margin. There was no lymphadenopathy. An x-ray film of the chest showed a homogenous density obscuring the right, middle and lower portions of the right lung field. There also was a rounded mass within the lung parenchyma.

On the following day she was transferred to the Medical Service, but no additional physical findings were noted there. A urine culture showed Micrococci and nonhemolytic Streptococci. A blood culture was sterile. The platelet count was 22,000 per cu. mm. The white blood cell count was 11,000 per cu. mm. The differential was normal. A biopsy of the bone marrow showed slight myeloid hyperplasia. A thoracentesis was performed, and the pleural fluid was found to contain abnormal cells by the Papanicolaou technic. A cell block of pleural sediment showed neutrophils, lymphocytes, red cells and mesothelial cells immeshed in fibrin. In addition, there were a number of isolated cells showing an abnormal nuclear configuration. These resembled neoplastic cells.

The rectal temperature varied between 101 and 102°F. Epistaxis was troublesome. It was necessary to pack the left nostril in order to control bleeding at that site. The patient returned home after 30 days in the hospital.

Two days afterward, she returned in critical condition. The blood pressure was 90/40 mm. Hg. The liver was larger. She appeared acutely ill, and dyspnea was profound. Hemoptysis was present. Thoracentesis of the right chest produced 3.5 L. of bloody fluid. The hemoglobin concentration of the pleural fluid was 4.5 Gm./100 ml. Numerous transfusions were given during the following days. Meticorten was begun, and the temperature promptly returned to normal. A few days later, thoracentesis was again performed, and one liter of bloody fluid was removed. The patient's illness progressed, and she died after 10 days of hospitalization following her last admission.

CLINICAL DISCUSSION

Dr. Willis M. Fowler, Internal Medicine: This patient was first admitted to the hospital as an 18-year-old primipara, and at that time she delivered a normal infant. Six years later, at the age of 24, she had an episode of profuse uterine bleeding, and a hysterectomy and salpingo-oophorectomy were done at the local hospital. Unfortunately the material was not examined by a pathologist, and we have no information as to the pathology of the uterus. Two years later she was again admitted to the hospital, at which time she had had an episode of pain in the right upper quadrant and pain referred to the shoulder—symptoms suggestive of biliary tract disease. She had a fever and was treated with antibiotics. The temperature became normal. She then developed pain in the right lower quadrant, and with it she had three bloody bowel movements. The pain and the bloody stools would suggest a rather profuse hemorrhage.

When she again developed pain in the right upper quadrant, she was referred to this hospital. At that time, her blood pressure was 120/60 mm. Hg., and it was noted that the right leaf of the diaphragm was higher than the left and did not move with respiration. Those findings would seem to suggest enlargement of the liver. There was some distention of the abdomen. A mass was palpated in the right side of the abdomen, but the protocol doesn't say whether it was in the right upper or lower quadrant. There was muscle guarding and rebound tenderness—findings indicative of peritoneal irritation, but not necessarily of infection. No mass was felt by rectal or pelvic examination. Further examination at that time and an x-ray film of the chest showed a linear atelectasis in the bases, and on fluoroscopy the right leaf of the diaphragm did not move. The atelectasis, I presume, was due in this case to the elevation and the immobility of the diaphragm resulting from the liver enlargement and abdominal distention. The intestines were slightly distended by gas, but there were no fluid levels at that time, and on x-ray examination the liver appeared to be enlarged, as we have already noted.

At that time, a diagnosis of acute surgical abdomen was made, and an exploratory laparotomy was performed. It was found that the peritoneal cavity was filled with blood, a circumstance which would account for the signs of irritation (i.e., the muscle guarding and the rebound tenderness). The liver contained large, dark red, friable masses in both the right and left lobes. I think that this fria-

bility is of particular importance when it is combined with the next feature mentioned in the protocol, that the tumor tissue bled profusely with the slightest manipulation and that puncture wounds spurted blood. Because of the profuse hemorrhage, no biopsy was obtained.

It is stated that the lesions appeared grossly to be lymphoma, although from the friability of the tumor and the profuse bleeding and spurting of blood from the puncture wounds in the mass, I should be inclined to doubt the diagnosis of lymphoma. A lymphoma is usually not so vascular and is usually firmer than was noted in this instance.

Following this operation, we find that the patient received nine units of blood, and afterward her hemoglobin was 13.8 Gm., whereas there had been 6 Gm./100 ml. on the previous examination. There was no reversal of the AG ratio, the blood urea nitrogen and creatinine were normal, and the electrolytes were normal. Coagulation studies were done, and they revealed a normal clotting time, normal clot retraction, normal one-stage and two-stage prothrombin times, normal accelerator globulin concentration, normal globulin concentration, normal clot size and no circulating anticoagulant. The platelet count was 114,000, which is slightly low, but not in the hemorrhagic zone. I believe one can conclude from this evidence that the bleeding and the blood in the abdominal cavity were not the result of a primary hemorrhagic disease. Certainly these findings would tend to rule out a thrombocytopenic purpura, hemophilia A and B, and other hemorrhagic diseases.

The sternal marrow was aspirated, and there was some increase in monocytes and plasmacytes such as occurs in the bone marrow as a result of a reactive process, but is not indicative of any specific disease.

It is of interest to note that the Coombs' test was negative, the serum bilirubin was only 1.2 mg./100 cc. of blood, and the reticulocyte count was only 2 per cent. Thus it would seem that the patient's anemia was merely the result of blood loss rather than of hemolysis. The fragility of the red cells was tested, and hemolysis began at 0.48 per cent saline and was completed at 0.28 per cent saline. This test is of little value here, for we started with a blood hemoglobin of 6 Gm., the patient was transfused until the blood hemoglobin was 13.8 Gm., and one has difficulty in deciding whether it was the patient's or the donor's cells of which a fragility test was made.

Following surgery and the diagnosis of lymphoma, the patient was given x-ray therapy and permitted to return home. She was readmitted to the hospital two weeks later, and apparently her condition had become worse. She then had anorexia, vomiting and dehydration. She had more distention than on the previous admission. The right hemithorax was dull to percussion, and rales were heard in the right lung base. The liver edge was palpable beneath the right costal margin. There was no lymphadenopathy. An x-ray film at that time was reported as showing a density obscuring the right, middle and lower portions of the right lung field. Fluid had appeared in the right chest cavity which had not been present on the previous admission, but it is also interesting to note that a rounded mass was found in the lung parenchyma which would indicate that a metastasis to the lung had occurred on that side.

The patient was then transferred to the Medical Service. The blood culture was sterile, and the platelet count was 22,000 per cu. mm., whereas it had been 114,000 before. The white count was 11,000, perhaps as a result of hemorrhage. The differential count was normal. A biopsy of the bone marrow showed myeloid hyperplasia, and that, again, is probably a reactive process due to the loss of blood. A thoracentesis was performed, and the pleural fluid was reported to contain abnormal cells, apparently neoplastic. The nodule in the lung on the finding of abnormal cells in the pleural fluid gives evidence of a metastatic neoplasm in that area.

It is of interest to note that the platelet count, 22,000, was considerably lower than it had been, and you will observe that in the next paragraph epistaxis is mentioned for the first time in this protocol. We are told that it was necessary to pack the left nostril in order to control the bleeding there. The epistaxis was probably due to the thrombocytopenia that had appeared during the course of the illness. On the final admission, we do note, hemoptysis became prominent, and I presume that this recent bleeding, particularly the epistaxis and hemoptysis, might very well have been due to the secondary thrombocytopenia that had made its appearance.

Thoracentesis was done in the right side of the chest, and bloody fluid was obtained. It contained a very large amount of hemoglobin. Meticorten was begun, and the temperature promptly returned to normal. Bloody fluid was again removed by thoracentesis. The patient died after 10 days in the hospital.

It seems to me that the patient developed a thrombocytopenia secondary to an involvement of the liver and spleen, and that it was not a primary feature of her disease. At least, thrombocytopenia was not present in the earlier stage of the illness, when there was considerable blood in the peritoneal cavity. Also, the coagulation studies seemed to indicate that primarily she didn't have a hemorrhagic disease. We have convincing evidence from the exploratory laparotomy that she had a mass or masses in both the right and the left lobes of the liver, and that the spleen was involved. Metastatic lesions appeared in the lung later in the course. The malignant cells were found in the pleural fluid, and thus all of these findings seem to be manifestations of a malignancy of some type.

Whether or not there was metastasis or a lesion in the cecum to account for the pain in that region and for the hemorrhagic episode is not known.

As I said, I do not believe that this patient had a lymphoma, in spite of the fact that such an impression was gained at the time of the exploratory laparotomy. I come to my conclusion primarily because of the extreme friability and bleeding of the tumor masses that were found in the liver. A carcinoma of the liver with metastasis to the lung is a possibility that would account for bloody fluid in the chest and in the abdominal cavity, but again the consistency of the lesion, its friability and its extreme bleeding would make it unlikely. My first guess as to the type of malignancy with which we're dealing in this individual was a malignant or metastasizing type of hemangioma, a tumor which is likely to involve the lung, liver and lymph nodes, and which is likely to lead to massive hemorrhage. A secondary possibility comes to mind because of the fact that the history started with a normal delivery in a 24-year-old patient, followed six years later by an episode of profuse bleeding, for which a hysterectomy was done. The extreme friability and bleeding tendency of the tumor as it was found in the liver at the time of laparotomy makes one think of chorionepithelioma. The fact that the gynecologists are represented on the panel that is to discuss this case encourages me in choosing this last-mentioned diagnosis.

Dr. Carl Gillies, Radiology: Our first film was taken when the patient was 18 years old and showed a term fetus within the uterus. The second was an intravenous pyelogram taken on her second admission, when she was 24, and showed normal renal function. The third film, an upright, showed great enlargement of the liver shadow. The fourth showed elevation of the right leaf of the diaphragm and linear atelectasis in the base of the lung. Fluoroscopically, the diaphragm did not move on the right side with respiration. A small metastatic lesion could be seen in the first interspace. The fifth film was a lateral view that demonstrated a metastatic lesion anterior to the heart shadow. The sixth showed a massive right pleural effusion, with the heart and mediastinum shifted to the left. The seventh film was taken immediately after pleural aspiration and removal of a large quantity of fluid, and it showed that some of the fluid remained. Further, it showed that the metastatic lesion in the right lung was larger than it had been before. The metastatic area anterior to the heart was also shown to have increased greatly in size.

Dr. Henry E. Hamilton, Internal Medicine: The gynecologists were content to let us manage this patient on Medicine, Dr. Fowler. When she was transferred to our service, a tentative diagnosis had been established, and she appeared moribund.

I'd like to discuss certain points of the work-up that preceded the diagnosis. This girl had a serious bleeding disorder and was studied at considerable length by the coagulation study group. Using all of the technics of evaluation at our disposal, we couldn't ascribe a mechanism or cause of the bleeding. We too, Dr. Fowler, were unimpressed by the suggestion that the lesion was a lymphoma. It just didn't have the right characteristics. In going over and over the problem, we kept coming back to the fact that profuse uterine bleeding following a pregnancy had required a hysterectomy, that afterwards there had been massive, unexplained gastrointestinal-tract bleeding, that a gradual onset of general debilitation had ensued, and finally that a friable, bleeding abdominal mass had been demonstrated surgically.

The coagulation study group finally came up with the idea of obtaining a biological test for pregnancy. The two positive tests led to the conclusion that a chorionepithelioma with metastases was the diagnosis most compatible with the observed clinical facts. Since a chorionepithelioma is a tumor of the reproductive system, we thought it might be under some sort of hormonal control that would render it amenable to a change in growth pattern. Fortunately, and article entitled "Recovery From Metastatic Chorionepithelioma Following Surgery and Long Term Androgen Therapy" appeared in the AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY.*

Since our patient had had surgical removal of the primary tumor, we placed her on 100 mg. of testosterone daily, and she showed improvement. She was able to be up and around the ward, and from inspection of her clinical record it appeared that she had improved enough to go home for a short time. I think this is quite significant in view of the fact that she had appeared to be dying when she first came to the service.

The patient returned once more, very ill and with profound anemia. We were of the opinion that the anemia was now primarily hemolytic, the sort of anemia often seen in malignancy. There were cellular debris, iron-containing granules and evidence of intense phagocytosis of the erythrocytes in the reticuloendothelial cells of the bone marrow. We therefore treated her with Meticorten in the hope of reversing the hemolytic process and, perhaps, further altering tumor growth. There was no improvement. The patient died, and we shall have to wait for the pathologist's report before knowing whether or not our interpretation of the clinical problem was the correct one.

Dr. George E. Perret, Neurosurgery: Was a biopsy done at the time of laparotomy?

Dr. Raymond F. Sheets, Internal Medicine: No biopsy was done at the time of laparotomy because the surgeon felt that there was too much danger of bleeding.

Dr. Elmer L. DeGowin, Internal Medicine: What did the AZ test show?

Dr. Sheets: It was positive in a dilution of 1:10.

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* Duffy, D. A.: Recovery from metastatic chorionepithelioma following surgery and long-term androgen therapy. Am. J. Obst. & Gynec., **69**:898-904, (Apr.) 1955.

Staff Physician: During what period of time was the androgen therapy given?

Dr. Sheets: I don't know, but I think the time totaled about one month.

Dr. Ignacio V. Ponseti, Orthopedic Surgery: Was the fracture of the clavicle a pathologic fracture?

Dr. Jack M. Layton, Pathology: I have it on the authority of Dr. Gillies that it was not.

At autopsy, the woman was obviously undernourished and mildly jaundiced. The surgical incisions were well healed. There was 2,300 ml. of bloody fluid in the peritoneal cavity, but there was evidence of inflammatory reaction in the peritoneum. The liver was enormous. It weighed 7,700 Gm. (as against the normal liver weight of 1,500 to 1,800 Gm.), and it occupied about half of the abdominal cavity. As a result, the leaves of the diaphragm were displaced upward, and the intra-abdominal viscera were displaced.

Many neoplastic nodules of various sizes and shapes had replaced the hepatic parenchyma. These masses were extremely bloody and friable. The massive hematomas were surrounded by a rim of trophoblastic tissue. The trophoblastic tissue was very minimal in amount when compared with the great bulk of the blood clot. Compressed liver tissue was disposed at the periphery. Neighboring vascular channels contained thrombi. A focal area of dissolution was present in the liver capsule, and bleeding had occurred from this area into the peritoneal cavity, and that accounted, in part, for the hemoperitoneum.

The spleen was greatly enlarged, too, and weighed 700 Gm. as against a normal weight of 150 Gm. Near the midline of the body, the spleen was attached to the liver, and soft hemorrhagic and necrotic neoplastic tissue had massively invaded about 40 per cent of the spleen.

The right ovary and the supracervical portion of the uterus were absent as a result of surgery. The cervix was present, and although fibrosed, it was not otherwise unusual. The left ovary was atrophic, with no luteal cysts and no significant anatomical abnormalities. The retroperitoneal structures were normal with respect to size and relationships. Hemopericardium and bilateral hemothorax were present. The intrathoracic and mediastinal structures had been displaced as a result of the massive replacement of the right lung by hemorrhagic and necrotic neoplasm. This growth had invaded the pericardium directly and had resulted in hemopericardium. A large mass was also present in the mediastinum. The left lung contained spherical hemorrhagic neoplastic nodules averaging about 2 cm. in diameter, but there was none of the massive hemorrhagic necrosis that was present in the right lung. Although there was no gross evidence of neoplasia in either adrenal, there were microscopic foci in each of them. One para-aortic lymph node contained a metastatic deposit. All were enlarged, but metastasis was found in only one. The bone marrow disclosed no appreciable lesion, and in the lymph node many hemosiderophages were present.

The histopathologic structures of the neoplastic masses were quite similar. It was characteristically a mass of blood with a rim of trophoblastic tissue. This is what one finds in cases of chorionepithelioma. The rim of trophoblastic tissue actually formed only a very small share of the total bulk of these nodules. The jaundice was associated with severe liver damage, and the bleeding was in part due to thrombocytopenia. In addition to the low thrombocyte count, there probably was also a defect in the clotting factors.

Dr. John R. Carter, Pathology: This girl's records show that on one or two occasions no abnormalities were found in her clotting mechanism, but she had had transfusions within a few days of the performance of those tests. Later, two distinct abnormalities were found, though neither of them was severe and one of them could be explained on the basis of thrombocytopenia. Factor VII was approximately 70 per cent of normal. The other abnormality, noted on two separate occasions, was a prolonged prothrombin consumption which could have been the result either of a deficiency of Platelet Factor III, and that in turn could have been the result of either the thrombocytopenia or the Factor VII deficiency or both. Both of these, along with other factors, are necessary to the formation of plasma thromboplastin, and it, in turn, is necessary for the consumption of prothrombin during clotting. Like Dr. Fowler, I don't believe that this was a primary clotting defect. Rather, I regard it as secondary to the other abnormalities.

Dr. Frederic W. Stamler, Pathology: Did neoplasm involve the pleurae?

Dr. Layton: The pleurae were smooth and glistening, and showed no neoplastic deposits.

Dr. Carter: What about the GI tract? Was it involved?

Dr. Layton: The GI tract was not involved by neoplasm.

Dr. Raymond G. Bunge, Urology: Was the right ovary present?

Dr. Layton: No, the right ovary had been removed surgically.

Dr. Stamler: I asked about the pleurae because we had a report of pleural fluid containing neoplastic cells.

Dr. Layton: "Resembled neoplastic cells" was the phrase contained in the protocol.

Neoplastic cells in the subpleural tissues and lymphatics may act as foreign bodies to stimulate an inflammatory reaction in the overlying pleura. This is often manifested by reactive hyperplasia or atypical proliferation of pleural mesothelial cells. Mesothelial cells in rapid proliferation may be extremely grotesque and may resemble neoplastic cells. These cells may be exfoliated into the pleural cavity and may be found in effusions. Cytologists without an appreciation of general pathology have made diagnoses of carcinoma of the lung on the

basis of them. Subsequently, the patient in question has been explored, and carcinoma of the lung has been found. However, in such instances, the correct diagnosis has been made on the basis of entirely false criteria. Unless the neoplastic cells actually invade the pleurae and get to the surface, they are not exfoliated into the pleural cavity. The neoplastic cells in our case were found in the subpleural lymphatics, and not on the surface. The grotesque cells encountered in the effusion sediment were atypical, proliferating mesothelial cells.

Dr. Hamilton: Would you have made this diagnosis for us if the biopsy had been given to you from any of this chunk of liver or spleen tissue?

Dr. Layton: It is problematical. If trophoblastic tissue had been present in the biopsy, yes. In some of the big masses of blood, it is difficult to find trophoblastic tissue. There is a possibility that only blood clot without the rim of trophoblast might have been obtained. If trophoblast were present, then the diagnosis could have been made. On the other hand, there is hardly any other tumor that would be equally bloody in the gross. Hypernephroma and angiosarcoma might approach this tumor in bloodiness, but lymphoma certainly couldn't.

Dr. William B. Goddard, Obstetrics and Gynecology: This is a strange story. In the first place, I feel that this tumor did not arise from the first pregnancy. The patient probably had a second pregnancy shortly before her hysterectomy at the age of 24. Apparently she had the hysterectomy for profuse bleeding, and I am of the opinion that such an operation should rarely be done without a specific diagnosis. In this instance, unfortunately, no procedure such as a D & C was undertaken in an attempt to find the cause of the bleeding, and furthermore, the surgical specimen never reached a pathologist. Certainly one isn't playing fast and loose with the patient's pocketbook by incurring $8 or $10 of expense for a pathologic diagnosis. This diagnostic problem that we are considering is one that need never have existed.

Choriocarcinoma (chorionepithelioma) occurs in about one in every 40,000 deliveries. Traditionally, 50 per cent occur after hydatid moles, 25 per cent after pregnancy and 25 per cent after incomplete abortions. From 5 to 15 per cent of molar pregnancies will develop choriocarcinoma, and Dr. Novak, who has the best figures on this subject, says that the tumor may have a long latent period, but that after the malignancy has become manifest, only 17 per cent of patients survive for one year. Cures are almost never seen.

Now, the microscopic findings tend to be confusing, and Dr. Novak feels that it is impossible to look at the slides from a mole and decide whether the patient will develop choriocarcinoma or will have no more difficulty. Most all series of cases are badly contaminated with perfectly benign moles, and there are those of us who feel that any survival means that the patient had such a mole.

The most useful test in cases of this sort is a biologic test for pregnancy. One was done on this patient. The 1:10 dilution was positive, and the 1:100 dilution was negative. This patient had over 20 rat units of chorionic gonadotrophins per cubic centimeter of serum, but less than 200 rat units. She had had a hysterectomy two years previously, and in consequence the diagnosis of choriocarcinoma was made at this point.

One of the big problems of the biologic test is that everyone wants to tie his diagnosis to a number. One hears such requests as this: "Give me a figure, and if the finding is in excess of it, I can be sure that the patient has a mole or a choriocarcinoma. If the finding is below that number, I can conclude that she has a normal pregnancy." It just can't be done. First, I suggest to you that urine specimens are completely useless and outmoded. One should use only blood serum. The literature reports recurrent attempts to use cerebral spinal fluid pregnancy tests. They too are quite useless, for the result reflects merely the serum level. Rather than looking for a fixed value, one must observe the pattern. Quantitative determinations are reported in various ways. It is best to report as international units per liter of serum or rat units per cubic centimeter. Those are identical.

It is wise to remember that one cannot differentiate a mole from a normal pregnancy within 100 days after the last menstrual period. About the sixtieth day the titer may rise as high as 800 rat units per cc. After that, the gonadotrophins decrease rapidly, and after the hundredth day it is about 5 and rarely over 20 rat units per cc. But after the hundredth day, if the gonadotrophins are high or rising, one must seriously consider a mole. There is an excellent review of the topic in the January, 1957, issue of OBSTETRICS & GYNECOLOGY* by Dr. Delfs, of Johns Hopkins.

After a mole has been absorbed or completely curetted out, the gonadotrophins should drop to zero within three weeks. Occasionally, there may be remaining trophoblasts, and the test will stay positive at a low level for months. At times we have been fooled on this both ways. Some of these patients may develop chorio. Following the titer is the important thing. A rising titer after complete delivery of the mole usually constitutes evidence of malignancy, but it may be evidence of a new pregnancy, and thus there is a diagnostic problem. Certainly, the presence of gonadotrophins after a hysterectomy is positive evidence of metastases.

Dr. Layton: What was that last statement?

Dr. Goddard: A positive pregnancy test done correctly at a significant time—let's say a month or more after hysterectomy—is clear evidence of metastases.

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* Delfs, E.: Quantitative chorionic gonadotrophin: prognostication in hydatidiform mole and chorionepithelioma. Obst. & Gynec., 9:1-24, (Jan.) 1957.

Dr. Layton: This is with an intra-uterine mole?

Dr. Goddard: In any patient after a hysterectomy.

Dr. Layton: What about the extra-uterine chorio?

Dr. Goddard: I've never seen one.

Dr. Layton: What about the mediastinal choriocarcinoma?

Dr. Goddard: Primary mediastinal chorio? Do you actually see those in women? Not men? Not metastastic lesion in the seminoma?

Dr. Layton: No, what I really want to bring out is this. What does the positive test for chorionic gonadotrophin actually mean? Fundamentally, what is it?

Dr. Goddard: It shows the presence of a chemical material that affects the rat's ovarian follicles and is roughly equivalent to the luteinizing hormone, and in the pregnancy test is done only on serum or on diluted serum. By and large, it means the presence of choriocarcinoma in a patient whose uterus has been removed.

Dr. Layton: Doesn't it really mean that there is trophoblastic tissue present?

Dr. Goddard: All right.

Dr. Layton: Nothing more.

SUMMARY OF NECROPSY FINDINGS

Autopsy disclosed an undernourished white woman with mild jaundice. An abdominal median incision below the umbilicus and a right oblique subcostal incision were well healed.

There was 2,300 ml. of bloody fluid in the peritoneal cavity, but no evidence of inflammatory reaction in the peritoneum. The liver was enormous, weighing 7,700 Gm. (normal = 1,500 Gm.), and it occupied about half of the abdominal cavity. As a result, the leaves of the diaphragm were displaced upward, and the intra-abdominal viscera were displaced. Numerous neoplastic nodules of variable size and shape had replaced the hepatic parenchyma. The largest mass was in the left lobe. The right lobe was considerably replaced by smaller nodules. Massive hemorrhage and necrosis were associated with all of the growths. The capsule was breached by neoplasm, producing rupture of the liver at one focal point, and this probably accounted for the considerable amount of blood in the peritoneal cavity.

The spleen was greatly enlarged too, weighing 700 Gm. (normal=150 Gm.). In the medial aspect, the spleen was attached to the liver, and it was invaded massively by soft hemorrhagic and necrotic neoplastic tissue. About 40 per cent of the spleen had been replaced.

The right ovary and the supracervical portion of the uterus were absent. The cervix was *in situ*, and except for being hard, it was normal. The left ovary did not contain multiple luteal cysts and showed no significant abnormality. The retroperitoneal structures were normal as regards size and relationships.

Hemopericardium and bilateral hemothorax were present. The intrathoracic and mediastinal structures were displaced owing to massive replacement of the right lung by hemorrhagic and necrotic neoplasm. This growth invaded the mediastinum and pericardium. Scattered throughout the left lung were spherical hemorrhagic tumors averaging 2 cm. in diameter.

Although no gross evidence of metastasis was observed in the adrenal glands, microscopic foci of neoplasm were found. Para-aortic lymph nodes were enlarged, but the bulk of the enlargement was due to hyperplasia. One lymph node contained a few neoplastic gland-like structures. A bone marrow examination disclosed no appreciable lesion.

The histopathologic structures of the neoplastic masses were similar. Characteristically, there was a mass of blood with a rim of trophoblastic tissue. The rim usually formed a very small part of the total volume of the nodule, and in many instances in a given section, trophoblastic cells were not found.

NECROPSY DIAGNOSES

Chorionepithelioma with massive metastases to the lungs, mediastinum, liver and spleen, and microscopic metastases to the adrenals and para-aortic lymph node

Hemothorax, bilateral
Hemoperitoneum
Hemopericardium
Surgical absence of corpus uteri and right ovary
Jaundice
Thrombosis, pelvic veins.

CORRECTION

Because of a mistake that had been made in the preparation of the manuscript, several items were omitted from the "Anatomic Diagnoses" in the Clinical Pathologic Conference report (on a man who died at the age of 101 years) that was published in the December, 1957, issue of this JOURNAL. Following is the complete list:

1. Hyperplasia of prostate
2. Acute cystitis and left pyelitis, severe
3. Hemorrhagic pneumonia, predominantly right lung
4. Cirrhosis of liver, mild
5. Malignant lymphoma of stomach
6. Adenomatous polyps of rectum and ascending colon
7. Adenocarcinoma of prostate, occult
8. Leiomyoma of esophagus
9. Arteriosclerosis, moderate
10. Myocardial fibrosis, patchy, and myocardial hypertrophy
11. Adiposity of pancreas, moderate
12. Pulmonary emphysema, moderate.

Coming Meetings

In State

Feb. 4-5	**General Surgery.** S.U.I., Iowa City
Feb. 18-21	**GP Refresher Course.** S.U.I., Iowa City

Out of State

Jan. 2-15	**Physical Medicine and Rehabilitation.** N.Y.U., N.Y.C.
Jan. 6-8	**Medical Technology.** U. of Kansas Medical Center, Kansas City, Kans.
Jan. 6-8	**Pediatric Surgery.** N.Y.U., N.Y.C.
Jan. 6-10	**Heart Diseases.** N.Y.U., N.Y.C.
Jan. 6-10	**Physical & Occupational Therapy for Neuromuscular Disease.** Warm Springs, Georgia
Jan. 6-10	**Othopedic Surgery.** Columbia Presbyterian Medical Center, N.Y.C.
Jan. 6-11	**Ophthalmology for Specialists.** Center for Continuation Study, University of Minnesota, Minneapolis
Jan. 6-17	**Laryngology & Surgery of the Larynx & Neck.** N.Y.U., N.Y.C.
Jan. 6-17	**Radiologic Safety.** N.Y.U., N.Y.C.
Jan. 6-17	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 6-24	**Laboratory Methods in Medical Mycology.** U.S.P.H.S., Chamblee, Georgia
Jan. 8- 9	**Management of Trauma.** University of Buffalo School of Medicine, Buffalo
Jan. 9-10	**Peripheral Nerve Injuries.** N.Y.U., N.Y.C.
Jan. 9-11	**Sectional Meeting, American College of Surgeons.** Statler Hilton Hotel, Dallas
Jan. 9-11	**Fluid & Electrolyte Disturbances.** Tufts University, Boston
Jan. 9-11	**The Newer Drugs in General Practice.** Center for Continuation Study, University of Minnesota, Minneapolis
Jan. 9-12	**Psychiatry (University of California).** Mount Zion Hospital, San Francisco
Jan. 13-14	**Newborn & Prematures.** University of California, San Francisco
Jan. 13-14	**Pulmonary Disease Clinic.** U. of Kansas Medical Center, Kansas City, Kans.
Jan. 13-17	**Anatomy for Orthopedic Surgeons.** N.Y.U., N.Y.C.
Jan. 13-17	**Infectious Diseases of the Eye.** Tulane University, New Orleans
Jan. 13-17	**Neuro-Ophthalmology.** N.Y.U., N.Y.C.
Jan. 13-17	**Basic Urology.** N.Y.U., N.Y.C.
Jan. 13-18	**Cardiology (Emory University).** Grady Memorial Hospital, Atlanta
Jan. 13-18	**GP Review.** University of Colorado Medical Center, Denver
Jan. 13-24	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Jan. 15	**Arthritis & Rheumatism.** U.C.L.A., Los Angeles
Jan. 15-16	**Gastroenterology.** U. of Kansas Medical Center, Kansas City, Kans.
Jan. 15-16	**Ophthalmology in General Practice & Pediatrics.** U. of California, San Francisco
Jan. 16-17	**Obstetrics & Gynecology.** U. of Nebraska College of Medicine, Omaha
Jan. 16-18	**Sectional Meeting, American College of Surgeons.** Jackson, Miss.
Jan. 17-18	**Dermatology Clinics.** U. of California, San Francisco
Jan. 17-18	**Non-Traumatic Emergencies (U. of California).** Franklin Hospital, San Francisco
Jan. 19	**Seminar on Heart Disease.** U. of Cincinnati, Cincinnati
Jan. 20-21	**Radiologic Safety Laboratory.** N.Y.U., N.Y.C.
Jan. 20-23	**Thirteenth Annual Postgraduate Course in Surgery.** U. of Kansas Medical Center, Kansas City, Kans.
Jan. 20-23	**Cancer.** University of Buffalo, Buffalo
Jan. 20-23	**Gastroenterology.** Rochester General Hospital, Rochester, N.Y.
Jan. 20-24	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 20-31	**Laboratory Methods in Diagnosis of Tuberculosis.** U.S.P.H.S., Chamblee, Georgia
Jan. 20-31	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Jan. 20-31	**Radiological Safety Laboratory.** N.Y.U., N.Y.C.
Jan. 20-Feb. 1	**Cancer Therapy for Surgeons.** N.Y.U., N.Y.C.
Jan. 21	**California Conference on Rural Health.** Bakersfield Hacienda, Bakersfield
Jan. 22	**2nd Annual Midwinter Symposium, Los Angeles County Heart Association.** Hotel Statler, Los Angeles
Jan. 22-23	**Cancer.** University of Buffalo School of Medicine, Buffalo
Jan. 22-23	**Gastroenterology.** Rochester General Hospital West Side, Rochester, N. Y.
Jan. 22-24	**Diabetes and Basic Metabolic Problems (American Diabetes Assn.).** Biltmore Hotel, Atlanta
Jan. 23	**Surgical Emergencies.** U.C.L.A., Los Angeles
Jan. 23-24	**Diagnostic Radiology.** Tulane University, New Orleans
Jan. 24-26	**Surgical Diagnosis in General Practice.** U. of Southern California, Los Angeles
Jan. 25	**Annual Symposium on Heart Diseases, Orange County Heart Association.** Disneyland Hotel, Anaheim
Jan. 25	**Pediatric Hematology.** U. of California, San Francisco
Jan. 26-28	**Patho-Physiology of the Gastrointestinal Tract.** U. of California, San Francisco
Jan. 27-28	**Pulmonary Function & Pulmonary Disease.** Indiana U., Indianapolis
Jan. 27-28	**Pathophysiology of Gastrointestinal Tract.** U. of California, San Francisco
Jan. 27-29	**Pediatrics.** University of Michigan, Ann Arbor
Jan. 27-29	**AMA Congress on Industrial Health.** Schroeder Hotel, Milwaukee
Jan. 27-Feb. 1	**Midwinter Seminar in Ophthalmology & Otolaryngology.** University of Florida, Miami Beach
Jan. 27-Feb. 7	**Endaural Surgery.** N.Y.U., N.Y.C.
Jan. 27-Feb. 7	**Medical Advances in Cardiovascular Disease (Columbia U. College of Physicians & Surgeons).** Mt. Sinai Hospital, N.Y.C.
Jan. 27-Feb. 7	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Jan. 29-31	**Obstetrics & Gynecology.** U. of Michigan, Ann Arbor
Jan. 29-31	**Office Psychiatry.** U. of Tennessee, Memphis
Jan. 30-Feb. 1	**Emergency Surgery for GP's.** Center for Continuation Study, University of Minnesota, Minneapolis.
Jan. 31-Feb. 1	**California Conference on Rural Health.** Bakersfield Hacienda, Bakersfield
Feb. 1	**Pan-American Congress of Ophthalmology.** N.Y.C.
Feb. 1-2	**American Academy of Allergy.** Bellevue Stratford Hotel, Philadelphia
Feb. 1-6	**American Academy of Orthopedic Surgeons.** Waldorf-Astoria Hotel, N.Y.C.
Feb. 3-4	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Feb. 3-5	**Diagnosis and Treatment of Congenital Heart Disease.** N.Y.U., N.Y.C.
Feb. 3-7	**Application of Histochemistry to Pathology.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 3-7	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 3-8	**Rhinoplastic Surgery.** Tulane University School of Medicine, New Orleans
Feb. 3-14	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 3-14	**Laboratory Methods in Study of Pulmonary Mycoses.** U.S.P.H.S., Chamblee, Georgia
Feb. 4-6	**Otolaryngic Radiology.** Ohio State University Hospital, Columbus
Feb. 5-6	**Medical and Surgical Aspects of Urinary Tract Disease.** University of Buffalo School of Medicine, Buffalo
Feb. 5-6	**Review of Advances in the Specialties as They Apply to General Practice. Frank E. Buntz** Educational Institute, Cleveland Clinic Foundation, Cleveland
Feb. 5-7	**Graduate Assembly.** Jefferson Medical College, Philadelphia
Feb. 6-8	**Cardiovascular Diseases for General Physicians.** University of Minnesota, Minneapolis
Feb. 6-8	**Problems on Fluid, Electrolyte and Nutritional Balance.** University of Oklahoma, Oklahoma City
Feb. 7-8	**Endocrinology.** U. of Nebraska College of Medicine, Omaha.
Feb. 9-11	**Annual Congress on Medical Education and Licensure.** Palmer House, Chicago
Feb. 10-11	**Impact of Newer Drugs Upon the Central Nervous System.** City of Hope Medical Center, Duarte, California
Feb. 10-12	**Endocrine and Metabolic Disease.** (Institute for Metabolic Research). Highland-Alameda County Hospital, Oakland
Feb. 10-12	**Recent Advances in the Physiological Aspects of Anesthesia.** University of Pennsylvania, Philadelphia

Feb. 10-13	**Radiology and Radioactive Isotopes.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 10-14	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 10-14	**Gastroenterology.** Duke University School of Medicine, Durham, N. C.
Feb. 10-15	**Neurology for General Physicians.** University of Minnesota, Minneapolis
Feb. 10-15	**Indirect Laryngoscopy, Voice Rehabilitation and Audiology (Columbia University).** Mount Sinai Hospital, N.Y.C.
Feb. 10-21	**Laboratory Methods in Diagnosis of Bacterial Disease—Part I.** U.S.P.H.S., Chamblee, Georgia
Feb. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 10-22	**Review of Neuroanatomy and Neurophysiology.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 10-22	**Surgical Technic in General Surgery—Course I.** Cook County Graduate School of Medicine, Chicago
Feb. 10-Mar. 8	**Experimental Basis of Psychiatric Theory.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 12-13	**Annual Heart Symposium.** Indiana U., Indianapolis
Feb. 12-13	**Advances in Obstetrics and Gynecology.** Indiana U., Indianapolis
Feb. 13-15	**Edema-Pathogenesis & Treatment.** U. of California, San Francisco
Feb. 15-17	**Orthopedics in General Practice.** U.S.C., Los Angeles
Feb. 17-18	**Clinical Chemistry.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 17-19	**Dynamics of Metabolic and Endocrine Disease.** Highland-Alameda County Hospital, Oakland
Feb. 17-21	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 17-21	**Latest Advances in Internal Medicine (American College of Physicians).** U.S.C., Los Angeles
Feb. 17-21	**Seminar in Dermatology and Syphilology (Designed for General Physicians).** N.Y.U., N.Y.C.
Feb. 17-21	**Recent Advances in Otolaryngology.** N.Y.U., N.Y.C.
Feb. 17-22	**Clinical Pediatrics.** N.Y.U., N.Y.C.
Feb. 17-28	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 18-21	**Midwinter Clinical Session, Colorado State Medical Society.** Shirley Savoy, Denver
Feb. 19-21	**Orthopedics in General Practice.** N.Y.U., N.Y.C.
Feb. 20-22	**California Blood Bank Annual Meeting.** Miramar Hotel, Santa Barbara
Feb. 20-22	**Ophthalmological Advances.** N.Y.U., N.Y.C.
Feb. 20-22	**Medical Emergencies (U. of California).** Herrick Hospital, Berkeley
Feb. 20-22	**Cardiovascular Diseases (Northeast Florida Heart Association).** Prudential Building, Jacksonville, Florida
Feb. 21-22	**Chicago Ophthalmological Society Annual Clinical Conference.** Drake Hotel, Chicago
Feb. 22-23	**Midwinter Conference of Los Angeles Radiological Society.** Biltmore Hotel, Los Angeles
Feb. 23	**Selected Medical and Neurological Problems (Ohio Academy of General Practice).** Netherland Plaza Hotel, Cincinnati
Feb. 24-25	**Acute Coronary Occlusion.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 24-26	**Auscultation of the Heart.** N.Y.U., N.Y.C.
Feb. 24-28	**Course for GPs.** U. of California, San Francisco
Feb. 24-28	**Pediatric Orthopedics.** Tulane University School of Medicine, New Orleans
Feb. 24-Mar. 7	**Laboratory Methods in Diagnosis of Bacterial Diseases—Part II.** U.S.P.H.S., Chamblee, Georgia
Feb. 24-Mar. 8	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 24-Mar. 20	**Hematology Laboratory Methods (Columbia U. College of Physicians & Surgeons).** Mt. Sinai Hospital, N.Y.C.
Feb. 25-27	**26th Annual Alumni Medical Convention, College of Medical Evangelists.** Hotel Biltmore, Los Angeles
Feb. 26	**General Surgery.** U. of California, Los Angeles
Feb. 26-27	**Neurology & Neurosurgery.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 26-28	**Dermatology.** U. of Tennessee College of Medicine, Memphis
Feb. 27-28	**Cardiac Roentgenology.** N.Y.U., N.Y.C.

Physicians' Gifts to Medical Colleges—1956

The American Medical Education Foundation reports that during the year 1956 it donated a basic $6,850.00 to each four-year medical school in the United States and $3,425 to each two-year basic science school. In addition, it turned over gifts which physicians had earmarked for specific institutions.

The total AMEF grant to the S.U.I. College of Medicine was $11,647.50.

The Foundation's receipts for the year 1956 totalled $1,066,863.39, of which the AMA gave $225,000, in addition to paying the Foundation's administrative expenses.

For the first time, on the basis of information furnished by the medical schools, the AMEF has been able to report not only the gifts that doctors have made through it, but also those which they have made direct to the particular schools in which they are most interested. The following tabulation of Midwestern states doesn't indicate any outstanding generosity on the part of Iowa physicians.

The number of Iowa contributors to AMEF is as large as it is by virtue of the fact that the Baldridge-Beye Loan Fund, amounting to $1 per paid-up member of the ISMS, is contributed annually to AMEF. Several state medical societies —among them Illinois—contribute far larger amounts per paid-up member. Indiana has adopted such a scheme for next year.

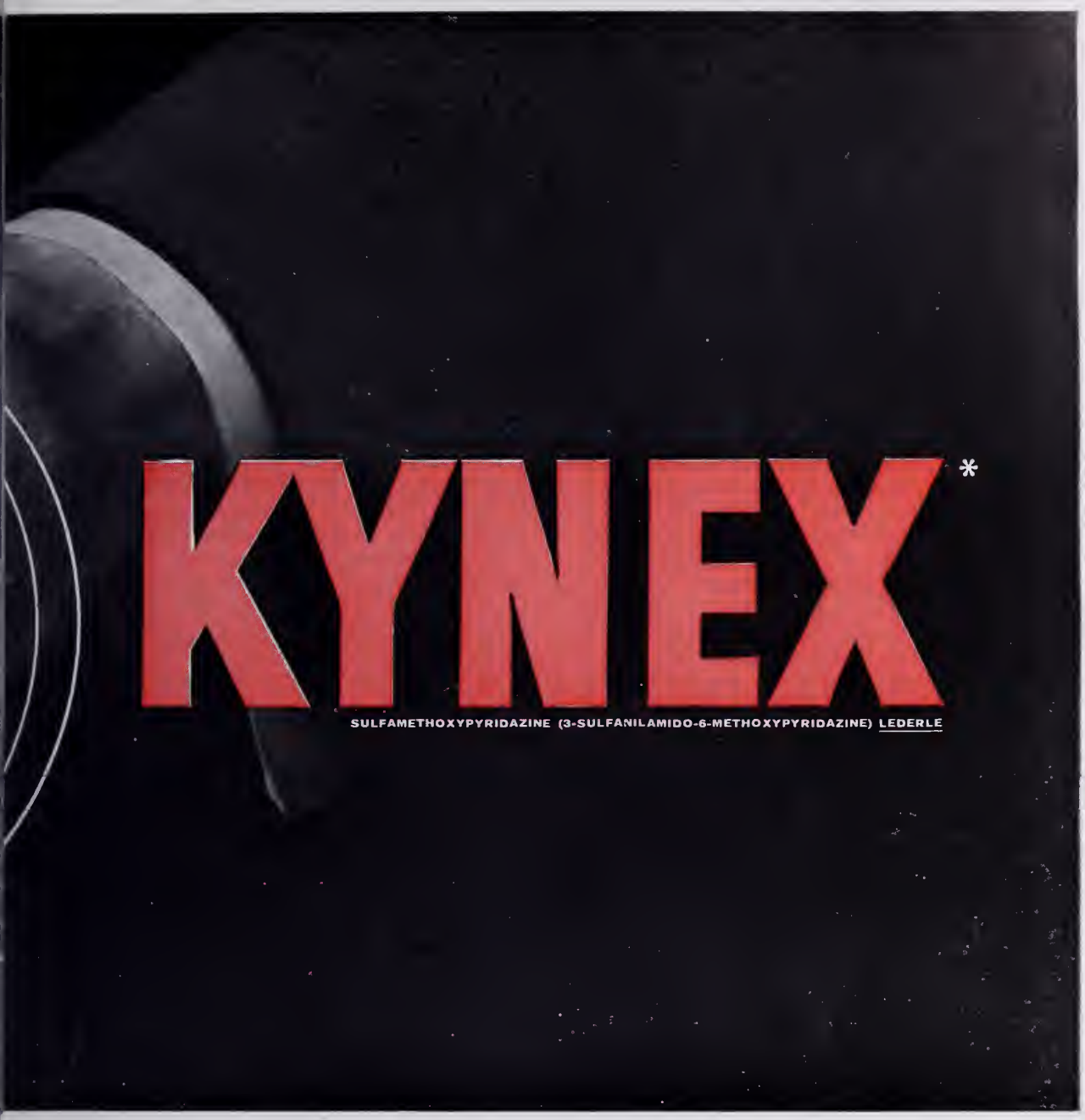
State	No. of Physicians in State	Number of Contributors			Amount of Contributions		
		AMEF	ALUMNI	TOTAL	AMEF	ALUMNI	TOTAL
Illinois	12,529	8,913	1,261	10,174	$197,963.76	$135,234.78	$333,198.54
Indiana	4,420	671	391	1,062	28,820.00	22,790.67	51,610.67
Iowa	2,829	2,083	295	2,378	8,372.86	18,462.85	26,835.71
Kansas	2,254	348	338	686	14,902.42	13,868.66	28,771.08
Michigan	7,900	144	1,112	1,256	8,417.19	36,894.34	45,311.53
Minnesota	4,440	1,057	663	1,720	27,508.75	20,442.50	47,931.25
Missouri	4,902	229	929	1,158	7,484.50	41,993.62	49,478.12
Nebraska	1,581	121	276	397	12,151.70	52,417.98	64,569.68
North Dakota	494	66	45	111	3,083.00	1,926.00	5,009.00
Ohio	10,873	587	2,535	3,122	27,724.78	113,527.92	141,252.70
South Dakota	534	152	56	208	5,756.50	2,673.50	8,430.00
Wisconsin	3,926	79	703	782	9,083.78	56,128.33	65,212.11



New authoritative studies show that KYNEX dosage can be reduced even further than that recommended earlier.[1] Now, clinical evidence has established that a single (0.5 Gm.) tablet maintains therapeutic blood levels extending beyond 24 hours. Still more proof that KYNEX stands alone in sulfa performance—

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- Higher Solubility—effective blood concentrations within an hour or two
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- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.



NEW DOSAGE. The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

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HAPPY NEW YEAR!

We are glad to have an opportunity, once more, to wish our readers a Happy New Year.

This, obviously, is an occasion for backward-glancing and forward-looking, and we should be out of step if we were to neglect doing some of both. So far as the Iowa State Medical Society is concerned, 1957 was a relatively uneventful year—comfortingly so, after 15 months or more of predominantly legal activities. Now, the Blue Cross-Blue Shield changeover is well under way, and though it is as yet far from complete, there seems little doubt of its ending satisfactorily.

The Iowa Blue Shield Board has its new contract ready for marketing, and the technics that have been found for liberalizing both benefits to policy-holders and allowances for physicians seem likely to please nearly everyone. The providing of benefits for the aged is the remaining problem of the sponsored prepayment plans, and it is very important for everyone who cherishes the American free-enterprise system.

As is shown in a group photograph that appears in this issue of the JOURNAL, the ISMS Fee Committee is still busy listening to the groups of doctors who seek to influence its decisions. We are told that the end of its work isn't yet in sight, but the Society's annual meeting is still several months away.

The principal cloud on everyone's mind has been cast by the sputniks and by the missiles that launched them. In that connection, we wish to call our readers' attention to the news story "Community Planning for Disaster," in this issue of the JOURNAL, in which Dr. Irving Laudeutscher, of Denver, is quoted as saying that most Americans are anticipating the worst and overwhelmed. Led by Dr. Robert C. Hardin, of S.U.I., and by the Iowa Interprofessional Association, we have an opportunity to help dispel that horrible state of mind and to get our nation back onto its feet. Let's be leaders!

The second most important project in which we must unite is that of defeating the Forand Bill, a proposal now before Congress which would provide surgery and hospitalization at government expense to elderly Social Security beneficiaries. In his "President's Page" in this issue of the JOURNAL, Dr. Fred Sternagel has succinctly stated the dangers that are posed by that Bill. Let's each of us make himself heard on that issue!

During 1958, for the first time in quite a considerable number of years, the S.U.I. College of Medicine will have adequate room for all of its teaching and research activities, for its new building was ready for occupancy a few weeks ago. The faculty there has increased the number of its short courses for physicians from year to year, and no doubt it will go on doing so. And its faculty will continue being an inspiration to all of us.

In cooperation with the faculty of the S.U.I. College of Medicine, the ISMS is planning to conduct at least two and perhaps more regional postgraduate meetings during 1958. This project is one for which you doctors have asked, and we hope that through your attendance you will help to make these gatherings a success. The schedule will be announced shortly.

The members of the ISMS Scientific Committee have virtually finished arranging the program for the 1958 Annual Meeting which is to be held in Des Moines on April 20-23. Please mark your calendars so that nothing foreseeable can interfere with your attendance.

REVISED PRINCIPLES OF MEDICAL ETHICS

Most doctors have known for several years that the AMA Council on Constitution and By-Laws was revising the Principles of Medical Ethics. At the Annual Session of the AMA House of Delegates in June, 1957, the revision was finally adopted. It consisted of no more than a short preamble and two relatively short sections, and many doctors were somewhat shocked that the contents of a fair-sized booklet should have been condensed into a single page.

The AMA Judicial Council undertook to develop a supplementary book which would correlate the new and the revised versions of the Principles, and it was promised that nothing would be lost of either the "spirit or the intent of the ethical and professional concepts which have traditionally been accepted by the medical profession." This new volume is entitled "Opinions and Reports of the Judicial Council, Abstracted and Annotated," and regarding its contents the Council says, "These opinions and reports are consistent with the 1957 edition of the Principles and are interpretive of it."

The format of the Judicial Council's new book needs some explanation, in order that Iowa physicians may understand the new Principles and may see how the Judicial Council's book correlates the old with the new. The scheme really is a rather simple one. First, the new principle is quoted. Second, the principle is explained under the heading "Traditional Concept Included Within Section. . . ." There then follows (A) a paragraph enumerating "those sections of the 1955 edition of the Principles which, in the opinion of the Judicial Council are included within the spirit and intent of the language of the 1957 edition," and (B) ab-

stracts of interpretations made by the Judicial Council since 1900 which were applicable to the old principle and are to be used in interpreting the new one.

In its present form, "Opinions and Reports of the Judicial Council, Abstracted and Annotated" consists of at least 60 pages of mimeographed material. To some, it may seem unfortunate that those data are not actually a part of the 1957 Principles of Medical Ethics which most doctors will read and which the public will accept as the code of the AMA. Indeed, one wonders whether either physicians or the public will have the annotations at hand when the Principles are being discussed.

The Council's job of annotating and interpreting the Principles will, of course, be a continuing one, and new opinions and reports will be published, from time to time, in J.A.M.A. It is possible that the Judicial Council will issue its "Opinions and Reports . . ." as a printed booklet for general distribution to members of the AMA, so that the new Principles may be better understood. And so that the additional interpretations that appear in the J.A.M.A. may be kept readily available, the booklet should perhaps be revised and reissued periodically.

In the meantime, one cannot fail to appreciate the efforts of both the Council on Constitution and By-Laws and the Judicial Council. Breaking a tradition is difficult, and both groups are to be congratulated for a complex job well done. Physicians generally can be assured that "no basic ethical Principle was deleted nor any traditional concept added or abrogated in the shorter version."

STATISTICS ON FOOTBALL INJURIES

Physicians, even more than other people, are concerned about the prevention of athletic injuries, and we feel sure they will be glad to cooperate in a new project which has that purpose. Sponsoring organizations such as the Iowa State High School Athletic Association, the National Intercollegiate Athletic Association and the National High School Athletic Association, working in cooperation with various medical groups and equipment manufacturers, have been trying to protect participants, especially in football, through improving game regulations, through equipment research, through improved conditioning and through good coaching. But, figuratively, they have had to work in the dark because no comprehensive figures have been available on the circumstances in which injuries have most frequently occurred. Now such statistics are to be collected, and it will, of course, be essential that physicians give their assistance.

To date, information is available only on fatalities in football. Because deaths have been surprisingly infrequent (two per 100,000 players during the past 25 years, and even fewer if secondary causes such as infection and heart involvement are excluded), the breakdown of findings in such cases is less significant and useful than the details of non-fatal injuries will be, when reports on them become available, but they are at least interesting.

A total of 17 fatalities (from head and internal injuries) were directly associated with football during the 1956 season. Twelve of them occurred in high school, three in sandlot, and one each in semi-pro and college football. One of the 12 deaths in high school occurred during a physical education class touch-football game. A total of five deaths were ascribed to indirect causes such as heart failure. One of those occurred in a college interfraternity touch-football game, and four in high-school games.

Deaths in high school football have numbered 1,502 during the past 25 years (slightly fewer than two per 100,000 players), and in college football they have numbered 2,311 during the same period (slightly more than two per 100,000 squad members). Approximately 53 per cent occurred to players between 16 and 18 years of age.

Now as has been pointed out, fatalities have been so infrequent and have composed so small a percentage of football accidents that observations on when and how they occurred aren't to be relied upon as characteristic of the general run of injuries. But here are the conclusions. Fatal injuries have occurred with greatest frequency within five minutes of the player's entry into the game. The fourth quarter of a scheduled game leads in deaths; practice session ranks second and the third quarter of a scheduled game ranks third. More deaths have taken place in September than in any of the other months in which the game is played.

Backfield men have outnumbered linemen in sustaining fatal injuries, but only very slightly, and tackling has been responsible for three times as many deaths as has any one of the other major activities such as blocking or ball-carrying. More fatal injuries occurred in front of the line of scrimmage than behind it, and significantly more deaths appear to have been associated with the T-formation than with the single-wing formations.

Since 1947, tabulations of specific locations of fatal injuries indicate that 79.22 per cent have resulted from blows to the head, more frequently to the front than to either the side or the back of the head.

We have been fortunate in Iowa. The last reported fatalities occurred three years ago. One of them was the direct consequence of a football injury, but the other was from an indirect cause.

The Iowa High School Athletic Association mailed forms to each of its member schools last year and again this year which ask for tabulations of injuries sustained by all players. If coaches and their physician advisors are vigilant, it is hoped that the causes of all injuries can be pinpointed and then eliminated.

FEDERAL HEALTH BUDGET, 1958

For the fifth time, we are presenting the highlights of the annual report of the AMA Washington Office on projected federal spending in the health-services field. Previously, we have done this in the December issue of the JOURNAL, but the report was late in reaching us this time.

One has only to compare the grand totals for 1958 and 1957 to see that the administration's much talked-about budget-paring accomplished little in the health and medical area. Hill-Burton spending is to be less than last year's, but that saving of the HEW Department is more than made up for by increases in allocations to the National Institutes of Health. Similarly, the increase in costs of VA inpatient care will more than equal the savings to be effected in other VA categories. And the medical expenditures of the Atomic Energy Commission are to rise 25 per cent.

Figures such as these are no doubt extremely hard to collect, and we hesitate to criticize them. Yet it seems that we must warn our readers not to accept the 1958 grand total as final. First, the decrease in spending forecast for the Armed Services is probably illusory, for as nearly as we can tell, the figures in the table do not include the anticipated costs of the Medicare program, which according to official estimates will have amounted to $62,000,000 for the 1957 fiscal year and perhaps will go even higher in 1958.

Second, though apparently the AMA Washington Office never before thought of tabulating the sums (for St. Elizabeth's mental hospital and for other health services) which the federal government pays for the people of the District of Columbia, and thus the 1957 total was lower than it should have been, there is at least one further important item that was omitted from the 1958 list. It is the anticipated cost of Social Security benefits for disabled individuals between the ages of 50 and 65. A year ago, as the tabulation indicates, the AMA Washington Office showed that the "Disability Freeze Program" *was expected* to cost $9,000,000 during the fiscal year 1957. That item was omitted from the 1958 tabulation, but a footnote indicates that "Disability Over Age 50" for the fiscal year 1957 *will actually* cost $175,000,000, and that there will be a third more beneficiaries by July, 1958, than there were a year earlier.

	1958	*1957*
Department of Health, Education & Welfare		
Division of Hospital Facilities		
Hill-Burton Original Program	$ 99,000,000	$ 102,800,000
Medical Facilities, Category Program	21,000,000	21,000,000
Hill-Burton Administrative Expenses	1,450,000	1,381,000
Research	1,200,000	1,200,000
National Institutes of Health		
National Cancer Institute	56,402,000	48,432,000
National Heart Institute	35,936,000	33,396,000
Mental Health Institute	39,217,000	35,197,000
Arthritis & Metabolic Diseases Institute	20,385,000	15,885,000
Neurological Diseases & Blindness Institute	21,387,000	18,650,000
Allergy & Infectious Diseases Institute	17,400,000	13,299,000
Dental Health Institute	6,430,000	6,026,000
General Funds	14,026,000	12,122,000
Laboratory Research Construction (NIH)	30,000,000	33,501,000
Water Pollution Control	47,500,000	50,000,000
Hospitals & Medical Care (USPHS)	44,399,000	40,969,700
Indian Health Activities	43,230,300	48,075,300
Assistance to States—General	22,592,000	17,591,000
Sanitary Engineering Activities	12,640,000	9,000,000
Tuberculosis Control	7,000,000	6,660,000
Communicable Disease Control	6,250,000	5,750,000
Office of the Surgeon General	5,100,000	3,892,000
Venereal Disease Control	4,415,000	4,195,000
Foreign Quarantine Service	3,876,000	3,315,000
Asian Flu Program	2,800,000	(new category)
Alaska Health and Sanitation Programs	2,165,000	1,185,000
National Library of Medicine	1,450,000	1,376,000
Reimbursable Health Program for Other Agencies	475,000	321,800
Freedmen's Hospital	3,000,000	(new category)
Howard University	1,136,000	(new category)
St. Elizabeth's Hospital	15,904,500	(new category)
Bureau of Public Assistance (med. payments)	150,000,000	100,000,000
Office of Vocational Rehabilitation	50,830,000	42,110,000
Children's Bureau	32,300,000	41,183,000
Federal Surplus Property Donation Program	15,200,000	(new category)
Food and Drug Administration	9,300,000	7,979,000
U. S. Office of Education (prac. nurse training)	4,000,000	2,545,000
Poliomyelitis Vaccine Program	(discontinued)	23,600,000
Alaska Mental Health Program	(not listed)	25,000
Disability Freeze Program	(see text)	9,000,000
Permanent & Total Disability Payments	(see text)	11,000,000
TOTALS	$849,395,800	$772,661,800
Veterans Administration		
In-Patient Care in VA Hospitals	$657,071,000	$619,614,000
Out-Patient Care	79,000,000	82,638,000
Modernization and Replacement Construction	42,500,000	51,635,000
Domiciliary Care	31,490,000	29,319,000
Contract Hospitalization	13,389,000	13,967,000
Medical Administration	7,862,000	7,300,000
Medical Research	11,344,000	10,990,300
Alterations, Improvements and Repairs	2,028,000	4,533,000
Supply Depot Operations	1,790,000	1,628,000
Medical Education and Training	1,400,000	1,400,000
Medical Care—Philippine Veterans	1,500,000	2,000,000
TOTALS	$849,374,000	$825,024,300
Department of Defense		
Army Medical Service	$270,700,000	$290,000,000
Air Force Medical Service	211,400,000	223,000,000
Naval Medical Services	220,100,000	277,000,000
Office, Asst. Sec. of Defense (Health & Medical)	105,000	105,000
TOTALS	$702,305,000	$790,105,000
Atomic Energy Commission	$ 40,085,000	$ 31,525,000
International Cooperation Administration		
Technical Cooperation Health Programs	$ 14,000,000	$ 16,380,000
Malaria Eradication Program	23,300,000	(new category)
Development Assistance Programs	(not listed)	$ 12,930,000
TOTALS	$ 37,300,000	$ 29,310,000
	1958	*1957*
Department of State		
United Nations Children's Fund	$ 10,000,000	$ 9,700,000
World Health Organization	4,200,110	3,410,000
Pan American Sanitary Bureau	1,518,000	1,386,000
Foreign Service Employees' Medical Care	(not listed)	1,000,000
TOTALS	$ 15,718,110	$ 15,496,000
Federal Employees Health Programs	$ 10,000,000	$ 10,000,000
Department of Labor		
Bureau of Employees' Compensation	$ 7,500,000	$ 6,600,000

Bureau of Labor Standards ...	596,476	551,126
TOTALS	$ 8,069,476	$ 7,151,126
National Science Foundation	$ 7,500,000	$ 8,000,000
Panama Canal Zone	5,988,300	6,055,300
Department of Treasury	3,837,850	3,511,700
District of Columbia	3,700,000	(not listed)
Federal Civil Defense Administration	3,100,000	49,810,000
Department of Justice	1,796,000	1,580,000
Federal Trade Commission	1,500,000	1,000,000
Department of Commerce		
Civil Aeronautics Administration	385,000	419,414
National Bureau of Standards ..	526,300	128,500
TOTALS	$911,300	$547,914
Civil Service Commission	$387,000	$386,000
President's Committee for Employment of Physically Handicapped	182,575	134,678
Department of the Interior	154,950	6,138,205
Office of Defense Mobilization ...	77,000	(new category)
Small Business Administration ...	70,000	(new category)
National Advisory Committee to Selective Service	19,000	180,000
Office of the Attending Physician of Congress	12,145	12,145
GRAND TOTALS	$2,541,483,506	$2,558,719,168

FLUID, ELECTROLYTE AND NUTRITIONAL BALANCE

The First Oklahoma Colloquy on Advances in Medicine, which is to take place at the University of Oklahoma School of Medicine, in Oklahoma City on February 6, 7 and 8, will be devoted to fluid, electrolye and nutritional balance. The registration fee will be $25.

The faculty will include William E. Abbott, M.D., Western Reserve University; Curtis Artz, M.D., University of Mississippi; John H. Bland, M.D., University of Vermont; Robert E. Cooke, M.D., Johns Hopkins; Ben I. Heller, M.D., University of Arkansas; Rachmiel Levine, M.D., Michael Reese Hospital, Chicago; John F. Mueller, M.D., University of Cincinnati; Arnold S. Relman, M.D., Boston University; and Robert Tarail, M.D., Roswell Park Memorial Institute, Buffalo.



The ISMS Fee Committee held a two-day meeting at the Hotel Savery, in Des Moines, on November 21 and 22, at which it heard deputations from GP's and specialty groups. Evidence of the liveliness of the discussions is provided by the fact that the first of those hearings wasn't concluded until 2:00 a.m. of the second day. The picture shows, from left to right, Mrs. Martha Jackson, secretary; Dr. Maurice J. Rotkow, Des Moines; Mr. Wilbur R. Quinn, of the ISMS staff; Dr. Ralph H. Moe, Griswold; Dr. William C. Eller, Waterloo; Dr. Robert B. Stickler, Des Moines; and Dr. Carroll O. Adams, Mason City.

President's Page

The Forand Bill (H.R. 9467) proposes that the federal government should provide surgical services, hospitalization and nursing care for persons over 65 years of age who are eligible for benefits under the Social Security Act. Physicians and all other people who love liberty and wish to preserve American democracy must recognize it as a threat to the structure of our society and a step toward its eventual collapse.

Today, there are 14,426,000 people over 65 years of age in the United States. Of these, 12,000,000 or 13,000,000 are eligible for Social Security benefits. The estimated annual cost of the benefits described in the Forand Bill would be $2,000,000,000.

The money would be obtained by increasing Social Security payments by both employee and employer. First, the base on which wage earners are taxed would be raised from $4,200 to $6,000. Then contributions of employees and employers would be increased 0.5 per cent each in 1959, and the self-employed would be made to pay 0.75 per cent more, based upon the proposed $6,000 annual maximum. By 1975, the rate of tax for employees would be 4.75 per cent, and a like tax would be collected from employers, making a total of 9.5 per cent of wages up to $6,000 annually. For self-employed persons, the tax would be 7.125 per cent of the first $6,000 of income, or a maximum of $427.50 annually.

This tremendous financial burden would prove such a hardship that the American people would no longer be able to provide adequately for their own medical and hospital care through private insurance programs. As a result, pressure would be brought upon the government to extend these added Social Security benefits to persons not yet 65 years of age.

What had started as a fungus growth within the framework of our democracy would soon mushroom into a cancerous accretion, destroying liberty and making a mockery of our traditional form of government. Physicians and everyone else interested in liberty and freedom must take up the fight against the Forand Bill. Now is the time for us to act!

While we do everything we can to defeat this invasion upon the rights and liberties of our people, we must at the same time give encouragement to the extension of Blue Shield, and work with insurance companies to help find a solution for the problem of more adequate health, accident and hospitalization coverage for persons over 65 years of age.

Fred Sternagel

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

MANUAL OF PEDIATRIC PHYSICAL DIAGNOSIS, by *Lewis A. Barness*, M.D. (Chicago, The Year Book Publishers, Inc., 1957. $4.00).

GASTRO-INTESTINAL OBSTRUCTION, by *Meyer O. Cantor*, M.D., and *Roland P. Reynolds*, M.D. (Baltimore, The Williams & Wilkins Co., 1957. $18.00).

SURGERY IN WORLD WAR II, OPHTHALMOLOGY AND OTOLARYNGOLOGY, ed. by *John Boyd Coates, Jr.*, M.D., *M. Elliott Randolph*, M.D., *Norton Canfield*, M.D., and *Elizabeth M. McFetridge*, M.A. (Washington, Office of the Surgeon General, Department of the Army, 1957).

CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY, VOLUME II, HORMONES IN THE BLOOD, ed. by *G. E. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Elaine C. P. Millar*, A.H.-W.C., A.R.I.C. (Boston, Little, Brown and Company, 1957. $9.00).

YEAR BOOK OF GENERAL SURGERY (1957-1958 Year Book Series), ed. by *Michael E. DeBakey*, M.D., and *Stuart C. Cullen*, M.D. (Chicago, The Year Book Publishers, Inc., 1957. $7.50).

THE PHYSIOLOGIC BASIS OF GASTROINTESTINAL THERAPY, by *Heinrich Necheles*, M.D., and *Martin M. Kirshen*, M.D. (New York City, Grune & Stratton, 1957. $8.75).

BOOK REVIEWS

DERMATOLOGIC FORMULARY, SECOND EDITION, ed. by *Frances Pascher*, M.D. (New York City, Hoeber-Harper, 1957. $4.00).

The New York Skin and Cancer Unit of the New York University Hospital has published this DERMATOLOGIC FORMULARY edited by Dr. Frances Pascher. Those of us who are acquainted with Dr. Pascher know that any work of hers would be thorough and useful.

Those of us who used the mimeographed sheets in which the work was originally issued will find the printed volume a splendid improvement. Its title indicates that it is the institution's formulary. What the title does not indicate is that within this book is included a veritable dermatologic therapeutic manual. Not only is there a comprehensive list of preparations and remedies, but their actions and uses, indications and contraindications are set forth, and directions and additional suggestions are given.

As one peruses the book, he finds it not just a formulary but a volume of dermatologic therapeutics.

Dermatologists use these medicines all of the time. The general practitioner will certainly profit by referring to this volume.—*S. Greenhill*, M.D.

THE BIOLOGIC BASIS OF CANCER MANAGEMENT, by *Freddy Homburger*, M.D. (New York City, Hoeber-Harper, 1957. $10.00).

It is often of value to pause a while to contemplate the meaning of our accomplishments. Often, we get so engrossed in minutiae that we fail to develop a concept of the whole problem with which we are attempting to deal. Freddy Homburger, of the Tufts Medical School, attempts to reveal to us the whole scope of the cancer problem. He writes about "The Etiology of Cancer," "Biologic Behavior of Cancer," "Diagnosis of Cancer," and "Treatment and Prevention of Cancer" in a book packed full of facts. Yet, he does not try to itemize all known facts about the disease, but instead philosophizes about their meaning. At the end of the volume are 56 pages of references for those who wish to seek more clarification of details. Multiple tables are scattered throughout the book to sharpen detail on specific divisions of the subject.

Dr. Homburger writes with brevity, lucidity and a great deal of confidence. One feels that the material presented has been assayed correctly and thoroughly. Books such as this, which attempt to integrate, digest and make sense out of a mass of source material, are of utmost value to those of us who lack the background which the author possesses or lack time to think of the meaning behind the articles that appear in the current periodicals.

One can heartily recommmend this book to all physicians interested in cancer.—*Daniel A. Glomset*, M.D.

PSYCHOSOMATIC MEDICINES: A CLINICAL STUDY OF PSYCHOPHYSIOLOGIC REACTIONS, THIRD EDITION, by *Edward Weiss*, M.D., and *O. Spurgeon English*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $10.50).

This volume on psychosomatic medicine has become one of the standard reference books in the offices and libraries of most medical doctors throughout the United States. It is worth noting, furthermore, that the book is published not only in English, but in Spanish, Portugese, Italian and French, as well.

An entire page in the volume is occupied by the following quotation from Plato: "For this is the great error of our day . . . that physicians separate the soul from the body."

The preface to the Third Edition mentions the fact that medical experiences of World War II were largely responsible for the widespread acceptance of psychosomatic concepts by physicians. If this is true (and I am not a judge of its accuracy, for I am young enough not to have known much of Medicine prior to World War II), it certainly took a long time for us to accept those truths of which great men of ancient times were aware.

The Third Edition of this volume is consistent in general orientation with the First Edition. The arrangement seems to me to be more acceptable, the contents of the book are orderly and logical, and I think that it is well written, in essentially general medical terms. Thus, the reader doesn't have to be a specialist or to be familiar with the "jargon" of psyshiatrists in order to understand it.

This volume is recommended for purchase.—*Howard V. Turner*, M.D.

G-P REFRESHER COURSE AT IOWA CITY

The Refresher Course for General Practitioners will be held at S.U.I., in Iowa City, on February 18-21, 1958, under the joint sponsorship of the College of Medicine and the Iowa Chapter of the American Academy of General Practice. It will be the third of such annual conferences, and like the 1956 and 1957 meetings, it is expected that GP's will find it highly valuable.

This four-day course is arranged as a review and a discussion of highlights of new developments in four areas of importance in the general practice of Medicine. By devoting one day to each area, the program committee hopes to enable physicians to choose one or more day-long segments, if they find it impossible to attend the entire conference.

Registration fee for the complete course is $40, or for a single day $15. The registration fee for AAGP members is $3.

There will be a dinner, preceded by a social hour, at the Mayflower Inn on Wednesday evening, February 19, for senior medical students, Academy members and the staff participating in the program.

Category I credit is allowed for this course—one hour's credit for each hour of the member's attendance. Those who attend the entire four days can obtain a total of 27 hours' credit.

PROGRAM

Tuesday, February 18

Surgery

Moderator, R. T. Tidrick, M.D.

8:30 Registration
9:00 Address of Welcome—Norman B. Nelson, M.D., Dean, S.U.I. College of Medicine
Comments—Donald H. Kast, M.D., president, I.A.G.P.
9:10 "Problems of Chronic Abdominal Pain"—R. T. Tidrick, M.D.
9:30 "Proctoscopic-Sigmoidoscopic Examination, With Demonstration of Safety Measures"—John A. Gius, M.D.
10:00 "Differential Diagnosis of Abdominal Masses"—R. H. Flocks, M.D.
10:30 Intermission
10:45 "Diverticulitis"—S. E. Ziffren, M.D.
11:15 "The Acute Surgical Abdomen"—E. S. Brintnall, M.D.
11:45 Panel Discussion, With Question and Answer Period
1:30 Small Group Conferences (limited to 20 registrants per group)
Burns—S. E. Ziffren, M.D.
Gallbladder Disease—R. T. Tidrick, M.D.
Breast Tumors—R. C. Hickey, M.D.
Management of Ocular Foreign Bodies— P. J. Leinfelder, M.D.
Painful Feet—C. B. Larson, M.D.
Local Anesthesia in General Surgery—S. C. Cullen, M.D.
Management of Tetany—R. T. Soper, M.D.

Moderator, R. H. Flocks, M.D.

2:30 "Scrotal Tumors"—D. A. Culp, M.D.
3:00 Symposium: Fractures of the Ankle— C. L. Gillies, M.D., and M. Bonfiglio, M.D.
4:00 "The Surgical Management of Patients With Parkinsonism"—R. Meyers, M.D.
4:30 Question and Answer Period

Wednesday, February 19

Obstetrics and Gynecology

Moderator, J. H. Randall, M.D.

9:00 Symposium: Menstrual Disorders
Premenstrual Tension—R. O. Swann, M.D.
Dysmenorrhea—W. C. Keettel, M.D.
Menopause—W. B. Goddard, M.D.
Functional Uterine Bleeding—J. H. Randall, M.D.
10:00 "Gynecologic Symptoms and Their Management"—Preston T. Brown, M.D.
10:30 Intermission
10:45 "Office Management of Vaginal Discharge"—J. H. Randall, M.D.
11:15 "Practical Evaluation of Pregnancy Tests"—James T. Bradbury, Sc.D.
11:30 Question and Answer Period
1:30 Small Group Conferences (limited to 20 registrants per group)
Manikin Breech—W. B. Goddard, M.D.
Manikin Occiput Posterior—J. H. Randall, M.D.
Office Gynecology—Preston T. Brown, M.D.
Ward Rounds, Obstetrics—W. C. Keettel, M.D.
Office Dermatology—R. G. Carney, M.D.
Induction of Labor—R. O. Swann, M.D.
Obstetrical Analgesia—James G. Lee, M.D.

Moderator, W. C. Keettel, M.D.

2:30 "Demonstration of a New Technic for Pudendal Block"—James G. Lee, M.D.

3:00 "Problems of Prolonged Labor"—Preston T. Brown, M.D.
3:30 Symposium: Postpartum Hemorrhage
Uterine Atony—W. C. Keettel, M.D.
Fibrinogen Defects—R. O. Swann, M.D.
Delayed Bleeding—W. B. Goddard, M.D.
4:30 Question and Answer Period

Thursday, February 20

Pediatrics

Moderator, J. C. MacQueen, M.D.

9:00 "Radiologic Diagnosis of Pneumonia in Children"—R. G. Barnes, M.D.
9:30 Symposium: Hearing Loss in Children—D. M. Lierle, M.D., and Staff
10:30 Intermission
10:45 "Use of Antibiotics in Respiratory Infections"—R. G. Frazier, M.D.
11:15 "Speech Disorders in Children"—Frederick L. Darley, Ph.D.
11:45 Question and Answer Period
1:30 Small Group Conferences (limited to 20 registrants per group)
Infant Feeding—M. L. Floyd, M.D.
Convulsions—J. C. MacQueen, M.D.
Office Otolaryngology—D. M. Lierle, M.D.
Examination of the Newborn—C. H. Read, M.D.
Colic—R. G. Frazier, M.D.
Diarrhea in Infancy—S. J. Foman, M.D.
The Handicapped Child—R. R. Rembolt, M.D.

Moderator, R. R. Rembolt, M.D.

2:30 "Problems in the Diagnosis of Rheumatic Fever"—Wm. B. Anderson, M.D.
3:00 "Differential Diagnosis of Infants With Signs of Intestinal Obstruction"—J. C. MacQueen, M.D.
3:30 Symposium: Eye Defects in Children—P. J. Leinfelder, M.D., and Staff
4:30 Question and Answer Period

Friday, February 21

Medicine
Moderator, Wm. B. Bean, M.D.

9:00 Pulmonary Disease Panel: A series of case studies correlating the clinical, roentgenologic and physiologic findings in emphysema, fibrosis, silo-filler's disease, A-V aneurysm, obesity and bronchial asthma. The importance of pulmonary function tests in diagnosis and treatment will be discussed.—E. V. Van Epps, M.D., Paul M. Seebohm, M.D., George N. Bedell, M.D., and William Wilson, M.D.
10:15 Intermission
10:30 "Asian Flu"—Albert P. McKee, M.D.
11:00 "Treatment of Middle Lobe Syndrome and Bronchiectasis"—J. L. Ehrenhaft, M.D.
11:30 Case Presentations and Questions

Moderator, L. E. January, M.D.

1:30 "Diagnosis and Office Management of the Depressed Patient"—Paul Huston, M.D., and Psychiatric Staff
2:45 "Cause and Treatment of Contact Dermatitis"—R. Nomland, M.D.
3:15 "Current Methods of Diabetic Therapy and Evaluation of Oral Hypoglycemic Drugs"—R. C. Hardin, M.D.
3:45 Intermission
4:00 "Practical Office Neurology"—A. L. Sahs, M.D.
4:30 Question and Answer Period

OTHER POSTGRADUATE COURSES

A two-day course in Anesthesia will be given by the S.U.I. College of Medicine on March 18-19, in Iowa City. This course has been declared acceptable for Category I credit by the Committee on Education of the American Academy of General Practice. A maximum of 14 hours' credit will be allowed for the two days.

Also, do not forget the 1958 Annual Scientific Assembly of the American Academy of General Practice, in Dallas, Texas, March 24-27.

GP'S CAN HELP ADVANCE MEDICAL RESEARCH

The cause of medical research would be greatly strengthened if more general practitioners conducted clinical investigations and reported their findings, according to Dr. Hart VanRiper, formerly medical director of the National Foundation for Infantile Paralysis and now medical director for Geigy Pharmaceuticals. Addressing the Fall Postgraduate Clinic of the Michigan Academy of General Practice, he said that far too many published papers consist of reviews of previously published articles, with summaries and conclusions based on inadequate clinical experience and little or no valid critical analysis. The general practitioner, he said, can play an important role by conducting clinical trials of his own, and analyzing and reporting their results.

These reports, Dr. VanRiper believes, would serve a two-fold purpose. First, they would improve the physician's own medical knowledge, and thereby the quality of his medical practice. Second, they would provide clinical material, thus contributing to the total fund of knowledge.

As an example, he cited the opportunities afforded for clinical investigation by new drug developments. Physicians interested in trying new agents have available to them basic data sheets providing them all pertinent information on the agent. "These data," he said, "afford the physician the opportunity to exercise his own critical judgment in the selection of cases to be included in his studies. While the chances of untoward reaction of the patient are minimal, there remains the climate for pursuing the latent instinct to acquire new knowledge and ultimately to contribute to our total sum of scientific information."



THE DOCTOR'S BUSINESS

"Municipal" Bonds Deserve Your Attention

HOWARD D. BAKER

WATERLOO

"Municipal" bonds, unfortunately, are encompassed in mystery for the average investor. The explanation probably lies in the fact that they are publicized less aggressively than are other investment media. Attention, therefore, should be called to the tax advantage and the freedom from risk that they offer.

What is a "municipal" bond? An uninformed person might reply that it is an obligation of a city or village, but he would be no more than partially correct. The so-called "financial community" uses the term *municipal* in referring to an obligation, not just of a city, but of a state, a territory, a school district, a county, a United States possession, or such a state or local instrumentality as a housing authority, a commission or a utility district.

All bonds in these categories enjoy immunity from federal tax.

FOUR TYPES OF "MUNICIPALS"

There are four major types of "municipal" bonds: general obligation, revenue, limited-tax, and federal- or state-subsidized bonds.

General Obligation Bonds are secured by all of the assets of the issuing authority. Generally, they are issued to finance roads, schools, parks or similar community facilities. They are regarded as the "blue chips" in the "municipal" category.

Revenue Bonds are secured by the particular project for which money has been raised, and the earnings of that project are relied upon to provide interest and repay principal. Such bonds are sold to finance toll roads, university dormitories, etc., and they are attractive because of the relatively high rates of interest that they pay.

Limited Tax Bonds are obligations for which the full taxing power of the issuing authority is not pledged. Rather, a single tax or series of taxes is designated as the means by which the bond is to be repaid. The various veterans' bonus bonds are representatives of this type, for they are secured by special property taxes or sales taxes.

State and Federal Subsidy Bonds are sold for the purpose of financing regional or local projects, but there is a certain amount of state or federal subsidy involved. Thus, local housing authority bonds are secured by federal funds.

A WIDE CHOICE OF REDEMPTION DATES

Since "municipal" bonds are usually issued to mature in installments from one to 25 years after their sale, the investor can tie up his money for either a short or a long period. Indeed, he may buy bonds to mature at convenient intervals.

The distribution of "municipal" bonds is indicative of the safety that they provide. Of the $37 billion in "municipals" now outstanding, 62 per cent ($23 billion) are owned by banks, insurance companies, corporations, trusts and the United States Government. The remaining 38 per cent are held by individuals.

HIGH RATES OF INTEREST

Because of the relative shortage of money over the past 18 months, many "municipals" have been sold to yield between 4 and 5 per cent interest. These rates are even more attractive when one takes tax exemption into consideration. The bonds or stocks of private corporations would need to provide a pre-tax yield of from 7 to 11 per cent (depending upon the owner's tax bracket) in order to be preferable to such "municipals."

For these reasons, "municipal" bonds offer an excellent place for a portion of the physician's fixed-dollar commitments.

MEDICAL HISTORY



The Medical History of Kossuth County

CHARLES HENRY CRETZMEYER, M.D.

ALGONA

Kossuth County, the largest in the State of Iowa, was established by the legislature in the year 1851, before there were any settlers living within its borders. Its namesake was Louis Kossuth, a Hungarian patriot who fled his native land after an unsuccessful attempt to gain its independence, and who sought political asylum in the United States. The fertile glacial drift of Kossuth County is a black loam capable of supporting luxuriant vegetation. Fine timber lines its rivers and creeks. The beautiful landscape, with rolling hills and great expanses of flat prairie, attracted settlers not only because of its obvious farming possibilities, but because of its abundance of shelter, fuel and water.

Asa C. Call and his brother Ambrose arrived on July 9, 1854, the first settlers to reach the county. Asa had worked his way through Oberlin College, in Chio, and had in turn been a surveyor in Illinois, a prospector in California during the first year or two of the gold rush, and then in quick succession, an Indian commissioner and a captain in the Army. But in all of these efforts he kept in his mind an intense desire to found a town.

When he returned from California, he wrote to his younger brother Ambrose, in Stillwater, Minnesota, asking that he join him "in a trip through the West to Nebraska or Iowa" to look for a good location. Ambrose was more than willing to undertake such an adventure. After covering a great deal of territory, they arrived in Kossuth County, and chose the present site of Algona as the most desirable spot in northern Iowa. When they settled there, the area contained hostile Indians, and the nearest house was 40 miles distant. The men were young, for Asa Call was 28 and Ambrose was 20 years old.

THE FIRST TWENTY-FIVE YEARS

There were few settlers during the first few years, but even so, they were occasionally the victims of illness or accident, and had need for medical care. The first practicing physician in the county was Dr. Robert Cogley, an Ohio Medical College graduate. He bought a claim from Levi Maxwell in Section 13 of Cresco Township in July, 1855. A month later, he was chosen county treasurer in the first election of officers, and he combined the work of that office with his professional duties. A typical doctor of the old school, he practiced according to the pioneer tradition. He is credited with having amputated the frozen leg of a man known as "Old Dutch Henry."

Dr. Corydon Craw arrived in the county soon after Dr. Cogley, but no record of his practicing is available. It is known, however, that he was defeated by a single vote in the first election for county judge. Several other doctors who came in 1855 were interested in acquiring land or in holding county office, and none remained to practice medicine. Dr. Amos S. Collins was one of them. He was a Democrat, and according to one report, "President Buchanan commissioned him to oust the Republican postmaster at Algona and take charge of the office himself."

Dr. Jacob Rorick Armstrong came to the village of Irvington in 1857 intending to practice dentistry, but he soon turned his attention to doctoring and worked up a good business. He was the second practicing physician in the county, and except for Dr. A. D. Mason, who located there in 1862, he was the only resident doctor whom Irvington has ever had. Dr. Armstrong's memory is still green in that community. Along with looking after the sick, he taught school for seven terms, and in 1859 he was elected county superintendent of schools. He also was a member of the first board of county supervisors.

According to an authoritative source, Dr. Armstrong was an outstanding teacher: "His ability to make pupils absorb and retain information on a large number of subjects was nothing short of marvelous. Besides regular subjects the good doctor taught physiology, geometry, astronomy, mineralogy and the elements of algebra. Every pupil was expected to know the Greek alphabet. All could count in Latin and knew a long list of words and the Latin and Greek derivatives [*sic*]. Some believe Doctor Armstrong demonstrated and proved his theory that there is practically no limit to which the mind

This is an account told by the late Dr. Cretzmeyer to Mrs. Inez Wolfe, of Algona.

can [*sic*] be forced when there is concentration on the subject and distractions are excluded. Also intensive study alone over a long period is not injurious to either mental or physical health."

Dr. Franklin McCoy came to Algona in 1857 and practiced there until 1866, when he moved to Indiana. He was followed by a Dr. Davidson, of Waterloo, who came to the county to look after some land interests and practiced whenever he had an opportunity.

Several men who had "read" medicine came as land seekers, took homesteads and practiced along with attending to their farming operations. Among them were a Mr. Fitch, who settled in Plum Creek in 1864, and Mr. W. T. Bourne, who came to the Black Cat in Union Township in 1867.

Dr. M. H. Hudson located in Kossuth in 1865 and practiced for 20 years in a settlement north and east of Algona. Age then forced him to retire to the county seat, where he died in 1903. He was an 1845 graduate of Berkshire Medical College, in Massachusetts, and first practiced in Brooklyn, New York. Then he went, in 1849, to the California gold fields by way of Cape Horn, and when he returned in 1851, carrying a bag of gold dust, he crossed the Isthmus of Panama on foot!

Dr. S. G. A. Read started his medical career in Kossuth County in July, 1865. He had graduated from the Cleveland Medical College, and he was regarded as a specialist in the treatment of fever and ague, ills that it was said he had learned to cure during his residence in Indiana.

Dr. L. K. Garfield homesteaded the northwest quarter of Section 21, Greenwood Township, in the northern part of the county, in March, 1865. Mrs. Garfield secured an adjoining quarter section shortly afterward. For their first three years on the farm, they lived in a sod house, but in 1868 they built the first frame residence in their township. Dr. Garfield started "reading" medicine when he was 21 under the tutelage of a Dr. Graves. After two years he entered the College of Physicians and Surgeons, in Keokuk, and graduated from that institution in 1878. Later, he graduated from Rush Medical College, Chicago. He maintained an active interest in politics and ardently advocated dividing Kossuth County into two average-size counties. He was unable, however, to win support for that idea.

From Old Greenwood he moved to Algona and established a large practice there. Years later, on January 19, 1894, the Kossuth County Medical Society was organized at a meeting held in his office there. At that time, he was 74 years old.

Dr. L. A. Sheetz came to Algona in 1869. He had interrupted his work as a student at the University of Michigan to enlist in the Union Army. He was assigned to the 8th Illinois Volunteer Infantry, and before muster-out in 1866, he had been made adjutant to the regiment in which he served. He returned to his studies after the War, and in



Dr. J. R. Armstrong

1869 was graduated from the Bellevue Hospital Medical College, New York City, and came immediately to Algona. He associated himself with the Durant brothers, pioneer druggists, and later bought their business. He operated the drug store, along with conducting his medical practice, until his death.

Dr. James Barr also arrived in 1869.He too had been in the Civil War and had studied medicine after being discharged from the Army. Soon after his arrival in the county-seat town, Algona, he formed a successful partnership with Dr. J. H. Leavitt.

A new era in the county's history was inaugurated by the arrival of the first railroad. Transportation facilities attracted many new residents from far places, and there were several doctors among them. Dr. H. C. McCoy arrived on the first train into Algona, at 11 P.M. on August 13, 1870. He had been an army surgeon and later, in Iowa, he was for many years a local surgeon for the Milwaukee Railroad. He had received his medical degree from the Chicago Medical College in 1866. Dr. Whitney also came in 1870, and for a time was a partner of Dr. McCoy's. They established a drug store in connection with their practice.

Dr. Margaret E. Colby (1855-1918) established herself as Algona's first woman doctor in the early

1870's, but later moved to Clear Lake. At about the same time, Dr. B. C. Forbush opened the Good Samaritan Drug Store. Dr. George E. Jackson came in 1871, and he was followed after a few years by the twin brothers, Drs. Alfred and Albert Richmond.

THE SECOND TWENTY-FIVE YEARS

Dr. John M. Pride was the first doctor in Whittemore. The town was platted in August, 1878, and in the early fall and winter of that year, several buildings were constructed. Dr. Pride graduated from the Medical Department of the State University of Iowa in 1878 and settled in Whittemore in June of the next year. He bought out the Creed Drug Store when it had been in operation for no more than a few months. He died in 1895 at the age of 46.

Dr. Orlando Harran instituted a practice in Algona in 1885, but his tenure was short, for he was suspected of slighting the ethics of his profession.

Dr. F. E. V. Shore, who had been born and reared in Canada, began practice in Algona in 1886 and remained five years. He then left a large patronage to go back to college for postgraduate work. After returning to Algona, he decided to move to Des Moines and specialize in eye, ear, nose and throat work. He developed into an eminent surgeon, and did many operations for brain tumor. In the 1930's, by strange coincidence, he died of the malady for which he had performed surgery on other people.

Dr. C. B. Lake, in 1881, was the first doctor to locate in Bancroft. His interest, however, was in merchandising—notably groceries—and he put up the town's first new building to serve the countryside as a grocery store.

Dr. A. W. Berryman's practice started almost with Bancroft's beginnings, and then in 1884 Dr. G. T. West began work there. He stayed there for four years, moved to Algona, and then after another four years returned to Bancroft. Dr. W. E. H. Morse also was at Bancroft for a short time, but in 1890 he moved to Algona to assume the practice left by Dr. Shore. People who knew him say he was a successful practitioner, but that his inventive mind often turned his thoughts away from his profession. He spent his leisure trying to invent an electric bed-warming device. He is credited with performing one of the first appendectomies in the county.

Dr. Loren E. Potter settled in rural Cresco Township in 1882, where he farmed and built up a practice. As a young man of 25, he had attended Kingsville Medical Institute.

Dr. Francis Lewis Tribon, a homeopathic physician who had graduated from the State University of Iowa in 1893, came to Algona in that same year and practiced continuously there until his retirement. He died at his Algona home in 1948, at the age of 84.

Dr. Eugene J. Gay (Drake University Medical School, 1897) and Dr. Margaret Coles (Hahnemann Medical College, Chicago, 1897) began practice at Algona immediately after finishing medical school. Dr. Frank Taylor Seeley (University of Michigan Medical School, 1872) practiced at Clear Lake for one year and several more in Dubuque County before opening an office in Algona (1899).

Dr. Michael J. Kenefick came to Algona in 1892 immediately after his graduation from Rush Medcal College. An indefatigable worker, he fitted up a hospital in 1907 and built up an extensive practice. It is said that he "did more to clean up the medical profession in Kossuth County than any other doctor" had done. In those early years, the profession locally had in it a number of charlatans and grafters.

Dr. Kenefick was present at the organization of the County Medical Society, he served as its secretary *pro tem.*, and he subsequently was chosen as its first regular secretary. He was president of the Austin Flint, Cedar Valley and Twin Lakes Medical Society, and in 1928 was president of the Iowa State Medical Society. He served the Algona school board for some 20 years, and was especially well fitted for school management, because he had graduated from ISTC and had taught for five years before taking up the study of medicine. At intervals during his lifetime of practice in Algona, he took postgraduate work at Chicago, at Bellevue Hospital in New York City, and at the University of Minnesota. He died of cerebral hemorrhage at his home in Algona on August 6, 1932. The hospital was sold in 1930, and Dr. John Nichols Kenefick, the old doctor's nephew, arrived to take over the practice. He still practices in Algona.

Dr. Walter Fraser began practice at LuVerne, in Kossuth County, in 1893, and worked there and at Corwith for 14 years. He moved to Algona in 1907, and worked there for 32 years. He was a graduate of Marion Sims College, in St. Louis, and he subsequently did postgraduate EENT work in Chicago and served in the Army Medical Reserve Corps during World War I. He died on May 19, 1938, at the age of 68, and was given a military funeral.

Dr. Warren T. Peters located at Burt, Kossuth County, on August 5, 1894. As a young man he had come to the area as a railroad construction worker and had stayed there, working as a teamster for a number of years. He studied medicine for four years under Dr. F. H. Cutler at Bancroft, and then went to Iowa City for a year's study. Next, he went to Chicago, where he completed a course at Rush Medical College, graduating in 1894. He returned to Chicago in 1897 for postgraduate work at Chicago Polyclinic Institute.

Dr. Peters' entire professional career was centered in the town of Burt and its environs. There was nothing that had to do with the improvement

of the community in which he was not active. He believed that every man has a duty as a citizen. He was instrumental in securing the town a new school building, and he was for many years president of its school board. In addition, he was a stockholder in the creamery and in the farmers' elevator, and was president of the locally-owned telephone company. Dr. Peters died suddenly from coronary occlusion at his home on August 3, 1936, at the age of 66 years.

THE THIRD TWENTY-FIVE YEARS

Dr. Pierre Sartor graduated from Bennet Medical College, Chicago, in 1896, and in that same year received his Illinois practitioner's license. He then interned at Cook County Hospital for six months and at St. Elizabeth's Hospital, Chicago, for three, and after a short time as a private practitioner in Chicago, came to Iowa, when he learned that a physician was needed in the Catholic community of Bancroft. He remained at Bancroft for 17 years, then (in 1918) moved to Titonka, and practiced there until his retirement on January 1, 1956.

The Kossuth County Society tendered him a dinner and a party on September 23, 1946, at which he was presented a certificate and a lapel button honoring him for 50 years of service. Oddly enough, he was unable to attend the dinner because a patient required emergency treatment, but he got to the party in time to join his hosts for a social evening. Dr. Sartor was chosen as General Practitioner of the Year by the Iowa State Medical Society at its 1953 meeting.

He is a member of St. Joseph's Catholic Church at Wesley, an honorary member of the Lions Club and the Chamber of Commerce, was a member of Titonka's town council for eight years, served on the town's library board, and was physician for 38 years for the Rock Island Railroad. He and his wife are now enjoying their retirement at their home in Titonka.

Dr. Stella Cleary Martinson graduated from the College of Physicians and Surgeons, Keokuk, in 1900 and began practice in Algona in 1902, but her tenure was short.

Dr. Charles R. Sheetz, a nephew of Dr. Leander Augustus Sheetz, located in Algona in 1903 and ran a drug store there until 1912. He was a graduate of Rush Medical College.

Dr. Thomas Hawkins Stull, an 1877 graduate of the College of Physicians and Surgeons, Keokuk, located in the county seat in 1903. Poor health forced his retirement earlier than he would have chosen to give up work.

Dr. John William McCreery began his practice at Pioneer, Iowa, but two years later, in February, 1900, he moved to Whittemore. During 35 of his 49 years there, he was the town's only physician. He was a graduate of the medical school at Drake University, Des Moines. To save himself time in his busy practice, he fitted up a three-bed hospital that proved a considerable convenience to his patients.

A measure of the esteem in which Dr. McCreery was held is provided by the fact that on the fiftieth anniversary of his beginning medical practice, 6,000 of his patients and friends contributed to the purchase of a Buick automobile and presented it to him. He delivered some 5,100 babies during his career. He died on February 2, 1949, from a heart attack. He had seen patients as usual only one day before his death.

Dr. Charles Henry Cretzmeyer graduated from the S.U.I. Medical School in 1901 and completed a year's internship at University Hospitals, Iowa City, in 1902. He was then ready to launch a practice, but lacked one thing—a location. He decided, first of all, to visit his grandfather in Chandler, Minnesota, and since there was no direct train connection, he had to stop overnight in Algona. There, he had several acquaintances, and while spending the evening with them he was told that Algona was a fine place to start practice. After giving the matter some serious thought overnight, he agreed. He rented a suite of offices in a building that was then under construction, moved in when it was ready for occupancy, and practiced there for the ensuing 51 years.

When he started practice, one traveled by foot, horseback or buggy over dirt roads that in the



Dr. C. H. Cretzmeyer

spring were almost bottomless. During the winter's deep snows, he made country calls in a cutter, protected from the wind by a huge scarf that Mrs. Nell Seiler, a trained nurse, had knitted for him. He recalls, gratefully, the comfort of that first homely gift.

One hot summer day, a farm hand came to ask the doctor's help for his 11-year-old son. When he went to see the boy, Dr. Cretzmeyer found the family living in a tent. The youngster had acute appendicitis and immediate surgery was necessary, but there was no hospital to which he could be taken. The doctor sterilized his instruments in an old Rochester sterilizer, and performed the operation in the tent, though there was no screen to keep out the flies. Dr. Stull administered the ether, and a clean-scrubbed old door supported by two barrels served as the operating table. A gangrenous appendix was removed, and the boy survived.

Obstetrical cases consumed much of the early doctor's time. After being called, the physician simply stayed with the patient, sometimes for long, weary hours.

Dr. Cretzmeyer has always been a general practitioner, but his greatest work has been surgery. When asked how many operations he had performed, he said, "I don't really know, but since I began keeping count I have done between 5,000 and 6,000." He is a member of the ISMS Fifty Year Club and of the American Association of Railway Surgeons, he is a past-president of the Kossuth County and the Austin Flint, Cedar Valley and Twin Lakes Medical Societies. For two years, he served as chief of staff (the first) in Algona's new St. Ann's Hospital. For 15 years he was councilor for the Second District of the Iowa State Medical Society. A Catholic, he is a member of the Knights of Columbus, and he is a past president of his town's chapter of Kiwanis.

Dr. Philip Velie Janse worked for a year in a Fort Madison drug store after his graduation from high school, intending to become a pharmacist, but mixing health potions seemed to him a less attractive career than prescribing them, so in the fall of 1899 he entered Keokuk College of Physicians and Surgeons, an institution which subsequently merged with the Drake University Medical School, which in turn merged with the S.U.I. College of Medicine, at Iowa City. When he graduated, in 1903, no internship was required, and he immediately entered practice at LuVerne.

The lack of hospitals in those days hindered doctors considerably, but Dr. Janse was one of those who utilized them least. Obstetrics was his specialty, and almost all of his 4,000 deliveries took place in the patients' homes. Indeed, it was not until after he moved from LuVerne to Algona in 1930 that he performed a delivery in a hospital.

Dr. Janse was a sports enthusiast from boyhood. At Keokuk, he had organized his fellow medical students into a cheering section to support the local high school teams, for he had been a high school football player at Fort Madison and realized how important encouragement from the sidelines can be. In LuVerne, he sparked considerable enthusiasm for tennis, built his own clay court, and played the game himself. Indeed, teamed with a banker, Mr. Fay Niver, he participated in the 1918 state tournament in that sport. He and Mr. Niver were runners-up in the doubles competition. Also, Dr. Janse managed a semi-pro baseball team in LuVerne for many years.

Later, he developed a basketball team known as the Janse Rats, made up of seventh and eighth graders, including his own son. Largely as a result of this preparation, the boys were especially proficient as the basketball team of LuVerne High School, and won their way to the Boys' State Tournament finals in the 1920's. He did considerable hunting and fishing, and took special delight in training dogs. To see him without a dog at his side was unusual.

He was active in community affairs at LuVerne, but never an office-seeker. He was, however, a member of the town's school board for 25 consecutive years, and for some of those years was its president. In the early 1950's he began limiting his practice and now sees only the patients who come to his office. Though he played tennis until he reached 60 years of age, he now confines his sports activities to the reading of sports pages and to playing daily games of cribbage. He still engages in many a heated argument on world affairs with his fellow townsmen.

A great many other physicians have practiced or are practicing in Kossuth County, men about whom full information is unavailable. They include the following:

Wesley—Drs. Robert H. Alleyne; A. M. Tuttle; Charles H. McCormick; John E. Hill, who came in 1883 and remained 20 years; John Franklin Scribner, 1903; J. W. Kennedy; George Adelbert Walters, who practiced 15 years; John E. Maguire, 1904; Thomas J. Carmody, 1907; Fred L. Adams, 1911; William S. Adair; Lee O. Snook, 1948; and Paul Warner, who now practices there.

Whittemore—Drs. Phelps T. J. Felling; C. B. Paul; Will Bowen; Leonard; William Clarke Heinen; Charles Wesley Hutchinson; and James S. Devine, who now practices there.

Bancroft—Drs. Elias A. Howe; Frank H. Cutler; Cassius M. C. Walters; Anthony H. Vorwerk; Robert A. Bushby; Charles Julius Plonske; William C. Gulde; John Andrew Devine; and Thomas J. Egan, who now practices there.

LuVerne—Drs. Edward F. Dunlap, who set up practice when the town was founded; Lewis R. Baker; George Lacy; Edwin Elmer Sowles; Walter Fraser, who subsequently moved to Algona; Charles S. Bliss; Joseph Rolla Baldwin; Alexander L. Spooner; Ray Lester Corbin; and J. T. Harris, who practiced there from 1947 until 1956, but now has moved to Stratton, Nebraska.

Burt—Drs. C. H. McCormick; Albert A. Beane, 1891; Warren T. Peters, 1894; C. B. Greear; Bert M. Rinehart; Harry Richard Blay; and John Guy Clapsaddle, who now practices there.

Fenton—Drs. Edgar I. Bradley, 1899; Johnson J. Bennett; Frederic W. Logan, 1901; and James Alexius Mueller. There is no medical practitioner in the town now.

Lone Rock—The history of this town contains the names of only two doctors, both long since deceased: Drs. Herbert Rayner and Frederick H. Rodemeyer.

Titonka—Drs. Veeder G. Treat, 1899; Chester W. Packard, in the early 1900's; Robert M. Wallace, 1906, who later moved to Algona; Clair Clapsaddle, 1919, who later moved to St. Genevieve, Missouri, and was still practicing there quite recently; Dr. Wilbur Franklin Hamstreet, who still lives in the county but is now retired; Leonard Schroeder, who was killed in a car-train accident in 1956; and John Lesiak, who came to Titonka from Buffalo Center in 1955 and now practices there.

Ledyard—The town plat was filed on June 25, 1884. The Dunlap addition to the village was filed in 1892, and it was at about that time that Dr. Edward F. Dunlap started his practice. Dr. Rosa E. Lowder and Dr. William Lowder were there in 1900. Dr. Russ followed, and other doctors were John W. Logan and Judson Laughlin. Records of the Kossuth County Medical Society show that the last of these paid dues in 1919. Ledyard now has no resident physician.

Lakota (or *Germania*, as the town was known before World War II)—Drs. Lewis Fry; Johnson; O. C. Lohr; Thomas Smith Wauds; Thomas Charles Barnhart; F. L. Senska; Edgar Zinn; George Charles Oldag; Ezra Lloyd Wurtzer; George H. Granan; G. J. Schuell; and Robert Law Williams, now retired. No medical practitioner now serves Lakota.

Swea City—Drs. Heflin; Saunders; Chester W. Packard, who moved to Titonka; Garringer; John A. Mutchler; W. F. Clemasha; Howard Mosier; Ed Mosier; Clyde R. Van Voorhis, now at Prairie City; Charles W. Mattison; R. M. Milke; H. H. Russ; John B. Tweeten; and Carl Williams Lundquist, who now practices there.

Algona—Dr. Robert W. Lee practiced at Algona from 1945 until 1950, when he went into military service. On his return to civilian life, he located in Fort Dodge.

THE KOSSUTH COUNTY MEDICAL SOCIETY

The Kossuth County Medical Society was organized in Dr. L. K. Garfield's office in Algona on January 19, 1894. The following physicians were present: Drs. Garfield, Henry C. McCoy, Wm. E. Morse, T. H. Stull, Price, M. J. Kenefick, and West, of Algona; E. F. Dunlap, of Ledyard, and Walter Fraser, of LuVerne. Dr. Garfield was called to the chair, and Dr. Kenefick was made secretary *pro tem*. A permanent organization was concluded



Dr. M. J. Kenefick

at the meeting held in the same place on February 16 of that same year, and the first permanent officers who were selected were: Dr. L. K. Garfield, president; Dr. E. F. Dunlap, vice-president; Dr. W. F. H. Morse, treasurer; and Dr. M. J. Kenefick, secretary.

Each member was urged to report to the secretary all persons known to be practicing as midwives without licenses, and all those who had failed to report births. A highlight of the early minutes of the Society was the group's action in 1897 approving the establishment by the Board of Regents of a new hospital in Iowa City. The minutes are consecutive since 1894, excepting for the year 1901 for which no entries were made of any activity of the Society.

According to the constitution of the organization, as revised on April 13, 1909, "The purpose of this Society shall be to bring into one organization physicians of Kossuth County, so that by frequent meetings and full and frank interchange of views they may secure such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the profession in all scientific, public health, material and social affairs, and with other county societies to form the Iowa Medical Association, and through it and other state associations to form and maintain the American Medical Association." Membership was open to "every reputable and legally

qualified physician in Kossuth County who does not support or practice or claim to practice sectarian medicine."

Meetings were held the second Tuesday in January and July at Algona, and at Bancroft in April and October. At a meeting in the latter town in 1908, Dr. R. M. Wallace, of Titonka, and Dr. Pierre Sartor, then of Bancroft, applied for membership; Dr. W. T. Peters, of Burt, read a paper on secondary bronchopneumonia, and Dr. William C. Gulde, of Bancroft, read an instructive paper on whooping cough. A per capita assessment of 25c was levied to pay current expenses, one item of which was a $1.25 bill for printing submitted by the UPPER DES MOINES REPUBLICAN. In 1909, the 19 members paid 50c each for 50 copies of the Medical Code of Ethics to be distributed to members and to some of the leading newspapers.

In 1914, at a joint meeting of the Kossuth and Humboldt County Medical Societies, held in LuVerne, Dr. Daniel J. Glomset, of Des Moines, read a paper on congenital syphilis, and Dr. Spooner presented an interesting case of chronic appendicitis. Later in that year, in an attempt at approximate uniformity in charges for services, the Society adopted a tentative fee schedule for fractures in which the amounts ranged from $5 for fingers to $50 for femur or elbow breaks.

In 1916, at an outstanding meeting, Dr. Frank J. Rohner read a paper on mistakes in diagnosis which resulted in lively discussion. It was moved that the manuscript be sent to the editor of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY for publication.



Dr. P. V. Janse

In 1917, when the United States was drawn into World War I, three meetings were held within a single month to discuss medical preparedness. Among other things, it was decided that the Society should pay county, state and AMA dues for those of its members who were in military service. The 1919 records show that those for whom dues were paid included Lt. Walter Fraser, Lt. T. J. Carmody and Capt. E. C. Hartman. In 1920, county dues were $2 and state dues $5.

In 1924, according to the minutes, "Dr. Clapsaddle reported on his case of auto tonsillectomy which was listened to with interest and discussed with great freedom. Opinion seemed unanimous that the doctor showed more courage than judgment, and if the sentiment expressed can be taken as an indication, the idea is not likely to become popular."

In 1926, the members voted to have monthly meetings if possible, and to invite dentists to attend. Programs were to consist of papers by members of both professional groups.

The year 1929 was a busy one. Medical care for the indigent was an acute problem, and the Society met at different times with the county welfare director and the county board of supervisors. Drs. Bemis and Garner reported on medical economics in Hancock and Winnebago Counties, and Drs. Janse, Cretzmeyer and Peters were appointed to revise the fee schedule. At a meeting at Dr. J. C. Clapsaddle's office in October, the fee schedule proposed by the board of supervisors was rejected. Minutes of that meeting were autographed by all doctors present.

Meetings in the 1930's likewise were frequently devoted to discussions of the medical care of the poor and affiliated subjects and problems. An all-time low was hit in January, 1934, when Dr. Sartor, the secretary, recorded transactions at a meeting where "six members were present, and there were no subjects, no discussion, no papers and no plans. Meeting adjourned *sine die*."

In 1935, socialized medicine had reared its ugly head, and the Society announced its opposition to the Wagner Bill. The subject remained in the forefront of the doctors' minds, and in 1939, as in the intervening years, the Society reasserted its position by condemning the proposal for health insurance that had been advanced by FSA. In that same year, a postgraduate course was arranged, and members of the Society were assessed $20 each to help publicize it.

After the United States had been drawn into World War II, in 1941, Dr. McCreery was appointed chairman of a doctors' procurement committee, and several of the county's physicians entered military service. Drs. Robert Williams, of Lakota, and John Kenefick reported for Navy duty

in 1942 and 1943, respectively, and Dr. Corbin, of LuVerne left his practice to enter the service of the Veterans Administration in Des Moines. In 1944, it was suggested that the Society invite medical officers at the Prisoner of War Camp west of Algona to attend its regular meetings.

In 1946, physicians as well as the general public became concerned about keeping the Kossuth Hospital in operation. Mrs. Nita Isaacson, who had been operating it as a private venture, said she was finding it unprofitable and wished to quit. In March of that year the doctors bought the equipment from her and in April undertook to rent her building. In September, at the recognition dinner held in honor of Dr. Sartor's completing 50 years of practice, the doctors subscribed $10,000 toward the $100,000 which would be necessary for a proposed Sisters' hospital. The remainder was subsequently raised by public subscription, and the structure was built on Highway No. 169 south of Algona on a site donated by Mrs. John Frankl.

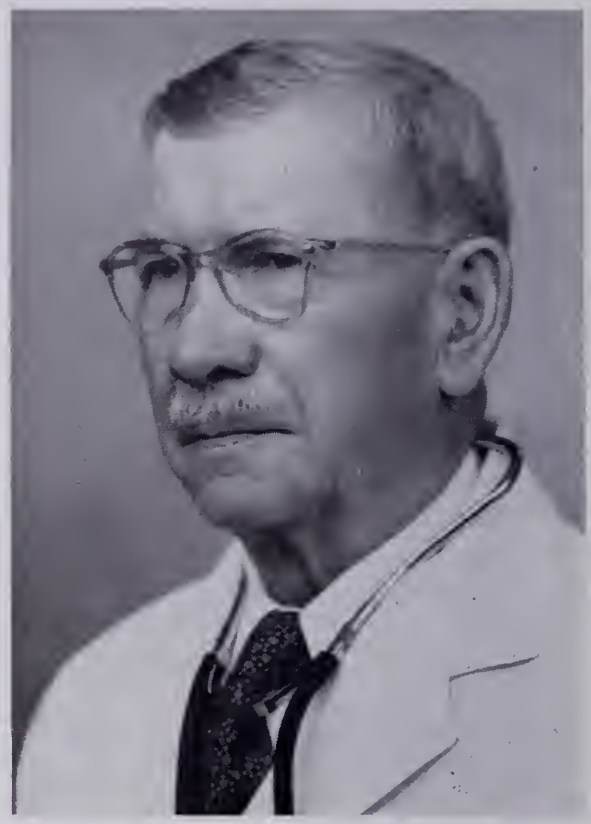
PRESENT MEMBERS OF THE KOSSUTH SOCIETY

Dr. M. G. Bourne interned at Harper Hospital, Detroit, following his graduation from the S.U.I. College of Medicine in 1929. Since 1931, when he began practice in Algona, he has done postgraduate work at the University of Minnesota, at Mt. Sinai Hospital, New York City, and at S.U.I. He is a member of AAGP, and he is a Congregationalist, a Kiwanian and a Shriner. His hobby is home movies.

Dr. Daniel Bray, following his graduation from the S.U.I. College of Medicine in 1943, spent two years in active military service overseas. He practiced four years in Bottineau, North Dakota, before coming to Algona in 1950. He is a Catholic and a member of the American Legion. For recreation, he engages in fishing and woodworking.

Dr. John Guy Clapsaddle graduated from the Medical Department at S.U.I. in 1912, served an internship at Washington Heights Hospital, New York City, and began practice at Burt in 1913. He was commissioned a first lieutenant in the Army Medical Corps during World War II. He is a member of AAGP, he has been president of the County Medical Society, and he owns some farms that take up what time he can spare from his medical practice. He belongs to the Lions Club and the Presbyterian Church, and he has been a school board member.

Dr. T. J. Egan graduated from the medical school at Creighton University in 1930, interned at Mercy Hospital, Council Bluffs, and practiced in Logan (1931-1933) and Ridgeway (1933-1935) before coming to Bancroft. He is a member of the Catholic Church. He and his wife have four sons, one of whom is already an M.D. Two others of them are medical students, and the fourth is still in grade school. Dr. Egan has done postgraduate work at the Cook County Graduate School of Medicine and at the University of Minnesota. His professional memberships include the Omaha-Mid West Clinical Society and AAGP, in addition to the county and state medical societies and the AMA. His hobbies are photography and small-bore shooting.



Dr. Pierre Sartor

Dr. Robert Horton graduated from the S.U.I. College of Medicine in 1948 and interned at Miller Hospital, in St. Paul. He served half of his military service before and half after starting practice in Algona in 1950. He is a member of AAGP, the Rotary Club and the Masonic Lodge. His hobby is flying.

Dr. John Kenefick associated himself in practice with his uncle, Dr. M. J. Kenefick, in Algona in 1931, after a short stay in Winterset. He had received his medical degree at S.U.I. in 1927. During World War II, he served for 30 months in the Navy and attained the rank of commander. He is a Catholic and a member of the Knights of Columbus. His hobbies are fishing, hunting and growing roses.

Dr. John Schutter graduated from the S.U.I. College of Medicine in 1942 and interned for one year at St. Joseph Mercy Hospital, Phoenix. He served three years in the Air Force Medical Corps, attaining the rank of captain. He moved to Algona after practicing at Mallard for six months. He belongs to the AAGP and is a recent past president

(Continued on page li)

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

IOWA'S MASS X-RAY IS SAFE AND UP-TO-DATE

The surgeon general of U.S.P.H.S. recently issued a news release regarding mass x-ray service in which he stated that mass x-ray programs for diseases of the chest, operated under the direction of competent specialists, are a fundamental technic in the detection of tuberculosis; that such x-ray case-finding programs should be applied selectively to groups with the highest risk of tuberculosis infection and disease; and that all such tuberculosis programs should have the prior approval of the applicable state or local health department. He further stated that consideration should be given to tuberculin testing as an initial screening device in known low-prevalence groups. To safeguard persons participating in x-ray programs, he stated that adequate precautions against any unnecessary radiation should be utilized. In conclusion, he declared that the inherent risks in x-ray exposure, although important, are relatively small when compared with the great benefits to be achieved from x-ray case-finding programs when conducted with the safeguards which he had enumerated.

The surgeon general did not reach these conclusions without advice and consultation. He had sought the advice of various groups or committees, among them the State and Territorial Health Officers, before formulating his suggested safety policy.

The Iowa State Department of Health, we find, already has its program geared to the surgeon general's suggestions. No x-ray case-finding program is ever started in any area of the state without the approval of the state and local departments of health and of the medical society of the county in which the program is to be carried out.

Tuberculin testing is increasing each year in Iowa. The increase is especially great in low-prevalence groups such as school children. The Iowa State Board of Health, at its July meeting, approved the general policy of the State Department of Health of tuberculin testing those groups under 18 years of age and reserving the mass x-ray screening program for persons over 18 years of age. More and more, Iowa is attempting to direct its case-finding program to areas in the state with the highest prevalence of tuberculosis. We also are directing the same program toward the older age groups in communities, for we know generally that our tuberculosis rates are highest in those groups.

All three mobile x-ray units operated by the Iowa State Department of Health are examined periodically to eliminate any unnecessary hazards of radiation either to the persons being x-rayed and to persons in the trailer waiting to be x-rayed, or to the technicians and the other workers in the trailer. This safety examination is carried out at the Atomic Research Laboratories of Iowa State College. The work is done by Mr. Milo Voss, health physicist for the Laboratories. The most recent test for our units took place in mid-September. A statement from the Atomic Research Laboratories said that the three trailers met all safety requirements.

We agree with the surgeon general that while there are risks inherent in any x-ray exposure, the benefits to be derived from a proper x-ray case-finding program far outweigh its dangers.

BED REST IN PULMONARY TUBERCULOSIS

The Sub-committee on Bed Rest in Pulmonary Tuberculosis of the American College of Chest Physicians has made a strong statement reaffirming the importance of bed rest and its proved value in the regimen of tuberculosis treatment. The Sub-committee believes that bed rest should be maintained until the lesion has stabilized, as indicated by bacteriologic, x-ray and clinical evidence.

This reaffirmation, the Sub-committee feels, is especialy necessary for three reasons: (1) a great deal of publicity has been given to some experiments with ambulation, though their success has been highly doubtful, (2) disproportionate emphasis has been placed on the part that drugs can play in tuberculosis therapy, and (3) an increasing number of cases are being cared for by men who have had little specific training in tuberculosis treatment.

The Sub-committee also wants to reaffirm the desirability of at least starting the patient's care

under sanatorium conditions, so that the patient can be thoroughly indoctrinated, so that his clinical problem can be evaluated, and so that the various therapies can be initiated under carefully controlled conditions.

The Sub-committee consists of Dr. Buford H. Wardrip, San Jose, chairman; Dr. Thomas G. Heaton, Toronto; Dr. Leon H. Hirsh, Milwaukee; Dr. Daniel Jackson, Huston; Dr. John S. Packard, Milton, Penna.; Dr. Harry Shubin, Philadelphia; and Dr. Giles H. Wolverton, Dayton.

LABORATORY DIAGNOSIS OF INFLUENZA

Under ordinary conditions, the influenza virus in nose and throat washings remains viable for only three or four hours. Therefore, unless such specimens can reach a laboratory within a short time, they must be frozen promptly and must be kept frozen until the laboratory study for virus isolation and typing is about to start. So as to learn the type of influenza that is occurring in any part of the state, the State Hygienic Laboratory and the Institute of Agricultural Medicine have recently set up a diagnostic laboratory for influenza. This laboratory is equipped either to carry out studies for isolation of the virus or to identify the virus by serologic methods.

VIRUS IDENTIFICATION STUDIES

This work is being carried out in conjunction with U.S.P.H.S. and the World Health Organization (WHO). The laboratory is primarily interested in diagnosing epidemics that may occur in Iowa. Epidemiologists have found that it is necessary to study specimens from a number of cases (12 cases have been suggested as being an adequate number) occurring at the same time in a community, in order to be relatively certain of finding any virus that may be causing an outbreak of disease. This does not mean that individual specimens submitted by practicing physicians will not be accepted. It means simply that specimens from areas where an epidemic is suspected will receive priority. All specimens properly sent to the laboratory will be examined as expeditiously as possible. This surveillance is deemed necessary in order that epidemiologists may learn what type or types of influenza virus may be present in different parts of the state. Although all influenza virus isolations in Iowa so far this year have been of the Asian strain, health authorities are eager to learn of the entrance of any other strain of influenza virus into the state. Laboratory diagnosis of influenza is carried out with a view toward determining the exact etiologic agent causing the epidemic, and not as confirmation of clinical impression in the individual patient.

COLLECTING AND DISPENSING STATIONS

So that materials for shipping throat washings may be readily available to practicing physicians, collecting and dispensing stations have been established in nine areas. They are as follows: (1) C. R. Phelps, M.D., Physicians Clinical Laboratories, 1258 North Elm Street, Ottumwa; (2) Robert G. Vernon, M.D., Finley Hospital, Dubuque; (3) Chas. P. McHugh, City Health Officer, Sioux City; (4) Robert E. Joranson, M.D., The Council Bluffs Clinic, 532 First Avenue, Council Bluffs; (5) James F. Speers, M.D., director, Des Moines-Polk County Health Departments, Des Moines 9; (6) Kenneth J. Goldsberry, Des Moines County Health Center, 522 North Third Street, Burlington; (7) George T. Joyce, M.D., St. Joseph Mercy Hospital, Mason City; (8) Robert C. Dunn, M.D., St. Joseph Mercy Hospital, Fort Dodge; and (9) State Hygienic Laboratory, Medical Laboratories Building, Iowa City. The State Department of Health will also serve in the above capacity upon request in writing or by telephone or telegraph.

MORBIDITY REPORT FOR MONTH OF NOVEMBER

Disease	*1957 Nov.*	*1957 Oct.*	*1956 Nov.*	*Most Cases Reported From These Counties*
Diphtheria	3	0	0	Pottawattamie
Scarlet fever	198	218	73	Johnson, Polk
Typhoid fever	0	4	4	
Smallpox	0	0	0	
Measles	48	31	211	Buena Vista, Clay, Linn
Whooping Cough	8	13	51	Des Moines
Brucellosis	11	7	11	One to a county
Chickenpox	276	159	277	Clay, Des Moines, Story
Meningococcus meningitis	3	2	0	Greene
Mumps	231	145	82	Polk
Poliomyelitis	2	4	19	Sioux, Woodbury
Infectious hepatitis	4	5	9	Dubuque
Rabies in animals	14	10	18	Washington
Malaria	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Tuberculosis	48	38	29	For the state
Syphilis	119	92	133	For the state
Gonorrhea	51	33	63	For the state
Histoplasmosis	0	0	1	
Food intoxication	0	0	0	
Meningitis (type unspecified)	0	6	1	
Diphtheria carrier	0	0	0	
Aseptic meningitis	0	6	0	
Salmonellosis	4	16	4	Polk
Tetanus	0	0	1	
Chancroid	0	0	0	
Encephalitis (type unspecified)	1	0	8	Johnson
Influenzal meningitis	2	0	1	Buena Vista, Polk
Amebiasis	5	4	2	Clay
Shigellosis	0	0	4	
Influenza	165,561	73,019	0	For the state

Woman's Auxiliary News

OUR PRESIDENT SAYS—

Another year has started, and with it always comes the feeling of a new beginning. All of us are inclined to make promises to ourselves during this season—promises to make the new year an even better one. My sincere wishes to each of you are that it may be the best year ever in your personal life and the most successful year our Auxiliary has had.

Perhaps a few reminders will help you in your planning. Don't forget to get your dues in promptly. It's always a chore, but as soon as it's done, you can forget about it.

Three out of 11 districts have held their district meetings. The rest of you will want to plan yours very soon. I should like also to suggest that you begin thinking about your annual reports, so that you won't have them to do at the last minute. In reviewing your activities, perhaps some of you feel that you haven't accomplished all that you'd like to have done. If so, time is growing short, and you will want to get busy right away.

I have had a wonderful time at each of the meetings I've attended, and frankly, I'd like to go to some more of them. Many thanks to all of you for your kindness and cooperation in every way. I am looking forward to the new year with eagerness and optimism for our mutual interests and efforts.

SUE GERKEN

IOWA FUTURE NURSES' MEETING

The Iowa Future Nurses' Conference, held at Logan Junior High School, in Waterloo, on Friday, November 8, was both educational and entertaining. Nearly 150 girls attended it.

Miss Virginia Turner, director of nursing education at Allen Memorial Hospital, assisted with the film that opened the conference. Later, she was called upon for information during the question-and-answer period. Mr. Thomas Frey, superintendent of the Hospital, welcomed the girls to the conference, the first one to be staged outside Des Moines. Mrs. D. H. King, of Spencer, was mistress of ceremonies.

The student nurses at Allen Memorial Hospital presented a skit entitled "Nursing," which they had written and rehearsed. It depicted the trials and joys of being a student nurse. A demonstration of nursing procedures was given, followed by a luncheon at the Hospital cafeteria.

Tours of Allen Memorial, Schoitz Memorial and St. Francis Hospitals were included in the afternoon program.

Mrs. F. Harold Entz, of Waterloo, the state chairman of Careers for the Woman's Auxiliary to the Iowa State Medical Society, had charge of the arrangements.

MENTAL HEALTH

Have you seen a high school play recently? Were you inspired by the message contained in the play?

High school dramatic groups can provide you an opportunity for conveying important information to the people of your community. Fine plays suitable for presentation by high school students are available through our mental health associations. You might get some, read them, and refer them to the play director in your town's school, together with an offer of financial support from your Auxiliary to help with the production of one or more. A project of this sort would accomplish multiple purposes. Besides promoting public interest in the problems of mental health, it would foster a highly worthwhile youth activity and help to bring your Auxiliary and your school into a closer relationship.

Have you had the frustrating experience of seeing a carefully-planned program disintegrate just as one of your Auxiliary meetings was about to start? In these days of Asiatic flu, a principal speaker sometimes fails (as airline hostesses say) to "show."

So that you may have a remedy for that sort of difficulty, bring a packet of "Milestones to Marriage" with you. Put one or two—or all nine—leaflets in the hands of as many members, and ask that they read them silently and then give a brief verbal report of the contents. A lively and worthwhile discussion is sure to ensue. These packets can be secured from the Auxiliary's state office for 35 cents each. They are excellent.

There is a wealth of material available for those who are interested in mental health. Please feel free to write to me at any time for specific information.

MRS. R. F. NIELSEN

IN MEMORIAM

The members of the Woman's Auxiliary to the Iowa State Medical Society were saddened to learn of the death, on October 31, of Mrs. C. W. Ellyson, of Waterloo. She was a charter member of the Black Hawk County Medical Auxiliary, and ever since her arrival there in 1916, she had been very active in civic affairs.

COUNTY AUXILIARIES

Black Hawk

A silent auction for the benefit of the American Medical Education Foundation was conducted at a meeting of the Black Hawk Medical Auxiliary on November 19, in the home of Mrs. Charles Manthey.

Dr. Craig Ellyson addressed the meeting on the Forand Bill and the dangers it poses both for the Social Security system and for the private practice of medicine.

Mesdames Louis Winninger, William Telfer and Arthur Woodward were in charge of arrangements.

Clay

The Spencer Future Nurses Club members attended the Future Nurses Conference in Waterloo, and reported that a very wonderful time was had by all. They felt they had learned a great deal. They were accompanied by Mrs. Dean H. King, sponsor; Miss Betty Barton, school nurse; and Miss Judy Howe, a student nurse at S.U.I.

Pocohontas

Mrs. Dean H. King conducted a traffic safety workshop for the Pocohontas Women's Club on November 23. Speakers on the program included Mr. Russell R. Brown, acting safety commissioner for the state; Mr. M. Carlson, of the Drivers License Division; Captain Lyle Dawson, of Spencer; and Patrolman Ludwig, of Spirit Lake.

It was an open meeting, and invitations to other organizations had been issued. The grade pupils in the parochial school put on a safety skit, using the five highway life signs as their theme. The meeting was attended by the students in the high school driver-education class. A question-and-answer period followed each speech, and the meeting closed with a roundtable discussion. The club has decided to sponsor a bicycle safety program in the schools, and later plans to sponsor adult driver education.

Mahaska

The Medical Auxiliary of Mahaska County held its regular luncheon meeting at the Downing Hotel, in Oskaloosa, on November 12. Mrs. John Hooley, of Sigourney, was a guest.

Mrs. Leroy Catterson, the president, reported on the state board meeting held in Des Moines in October, and Mrs. F. O. W. Voigt gave a very informative talk on civil defense. Mrs. Keith Campbell spoke very interestingly on mental health.

THE CHATTER BOX

The **Marion Allens**, of Fort Dodge, attended a performance of the Royal Ballet of London, formerly the Sadler's Wells Ballet, in St. Louis recently. Mrs. Allen, having been in ballet for a number of years, was delighted with the program.

* * *

Pat and **Don McBride**, of Des Moines, have named their new son Daniel.

* * *

The Medical Forum Club of Des Moines presented an elegant Christmas formal dinner dance on December 7. **Ralph** and **Frances Hines** along with **Kirby** and **Luvern Shiffler** were in charge of the arrangements.

* * *

'Bye for now. See you in February!

AMEF Note Paper and Envelopes

$1.00 for a pack of 10 each

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Proceeds will be donated to the American Medical Education Fund

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

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Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Trends of Medical Practice in Hospitals

PHILIP H. CLESS
DES MOINES

It is probable that people other than physicians began giving aid and comfort to the sick hundreds of years before the start of medical practice. The mother took care of the ill child, and the child cared for the ill parent. From the beginning of medical practice, the physician found non-medical assistance indispensable. When the patient did not respond almost instantaneously to the treatment given him, the administration of prescribed medicines and the carrying out of the doctor's orders have always been left to others—first to members of the patient's family, later to so-called practical nurses and midwives, and finally to educated nurses. These individuals have worked under the control and supervision of the doctor, and no difficulty has arisen as long as their status as his agents has been remembered.

Contagion, patient debility and the fact that fewer doctors and nurses could attend more patients soon led to the organization and development of hospitals—places where doctors could serve sick people. Usually, the hospitals were provided by charitable religious groups who were content to devote themselves to the performance of housekeeping functions and the provision of nurses to work as agents for the doctors who practiced in the hospital. The doctors were busy people, and they did not care to spend their time arranging for the provision of food and fuel and the completion of the countless housekeeping chores incidental to the operation of a hospital of any size.

Along with the departmentalization of Medicine into specialties, in the twentieth century, came the marvelous developments of laboratory and radiologic technics. They necessitated the purchase of expensive equipment, and since the apparatus was most needed in the care and treatment of hospitalized patients, it was only natural that they should become centered in hospitals, where such consultative services might be available to all doctors. Pathologists and radiologists soon found that by delegating certain portions of their work to lay technicians working under their control, they could save time for research and teaching. Unfortunately, they did not realize that these people were performing medical acts, and permitted—nay, insisted—that the hospital provide these technical people, somewhat like nurses. Because individual fees were small and patient contact was somewhat remote, the pathologists and radiologists were, themselves, content to become salaried employees. Thus, the hospitals launched into the purveying of medical services.

Mr. Cless is the legal counsel who represented the Iowa State Medical Society during the prolonged physician-hospital controversy.

The illegality of this arrangement was brought into focus only as a result of the recent Iowa litigation, and American Medicine will forever be indebted to the doctors of Iowa for shouldering the work, expense and responsibility for that clarification.

THE DRIFT TOWARD INSTITUTIONALIZATION

In the meantime, four developments punctuated the drift toward the institutionalization of medical practice.

1. Following World War I, as a part of the vast veterans' program, former service men of certain entitlement were provided medical care by and in government hospitals at the hands of salaried doctors, and at the same time there developed substantially the same mechanism for the treatment of indigents in the great teaching hospitals of our several states. For ambitious lay people associated with voluntary hospitals, these provided vivid illustrations of what might occur if the institutional practice of medicine could be brought into so-called charitable hospitals, where rising costs and expansion could be financed only through acquiring new sources of revenue. Collections would be assured if Blue Cross could insure the cost of general medical services, just as it was insuring the cost of pathology and radiology.

2. Traditionally, young doctors received on-the-job training as interns and residents in hospitals, under the control and supervision of members of the medical staffs. For years these students were uncompensated, receiving only board and room from the hospitals. Recently, partially because of wartime dislocations, there have often been too few student doctors to supply the need for interns. Then too, many such men have assumed family obligations and needed substantial stipends for the work which their predecessors had done virtually for nothing. It has not been difficult for hospital executives to reason—with some justification—that they are already purveying medical services by supporting interns and residents, even though those men are engaged in on-the-job training under the supervision of the members of the medical staff, since the cost of the program is, of course, reflected in the hospital bed rates paid by the patients.

3. Under the guidance of the American Medical Association, a program for the accreditation of hospitals was delegated to the American College of Surgeons. Reflecting the attitude of that busy group of specialists, the accreditation principles and standards that were developed had the effect

of subordinating a hospital's medical staff organization underneath the overall managerial framework of the institution's board of trustees. There were enough isolated instances of unnecessary surgery, inadequate records, fee-splitting, favoritism and the like to make this arrangement seem desirable. As a corollary, doctors were discouraged from serving on hospital boards of trustees. The status of a hospital's board of trustees in relation to its medical staff became epitomized in the following statement of the Joint Commission on Accreditation of Hospitals, the organization which, in 1953, succeeded the American College of Surgeons as the accrediting body: "The governing body has the legal and moral responsibility for the conduct of the hospital as an institution. It is responsible to the patient, the community, and the sponsoring organization. Its official representative is the chief administrative officer of the hospital. The medical staff is responsible to the patient and to the governing body of the hospital for the quality of all medical care rendered to patients in the hospital and for the ethical and professional practices of its members." The governing body appoints the medical staff.

Under the impetus of Blue Cross and Blue Shield, as well as the vendors of commercial hospital and medical insurance, Hill-Burton programs, intensive fund-raising campaigns and other utilization factors, hospitals of all types are of ever-increasing importance in life today, and have attracted to their boards some of the best commercial minds in the community. Their motivation by public service has not prevented these men from applying business concepts to hospital administration, making use of cost accounting and casting about for new sources of income, just as they had been accustomed to do in their private pursuits. The tremendous upsurge in hospital costs has indeed encouraged them to do so, for the bed-rate income has not kept pace.

4. Boards of trustees of this complexion have created a demand for skilled and highly trained administrators. A number of universities now offer a degree of Master in Hospital Administration. The boards expect those men to produce balanced budgets, as well as to provide smooth medical-staff relationships. The economic pressures often cause an administrator to think of the purveyance of medical service by the hospital as an additional source of revenue to the hospital and of prestige to himself. He sees residents, interns, nurses, technicians, technologists and others on the hospital payroll performing medical or paramedical acts under physician control, and as was the case in pathology and radiology, he sees no reason why these services may not be the means of securing additional hospital revenue.

DOCTORS MUST REASSERT THEIR PREROGATIVES

Will the impact of these four major developments tend toward an increase in institutional medical practice? It will if doctors wish it. The control of the people who help doctors is only a step from control of the doctors themselves. No hospital ever undertook to purvey medical service unless the physicians on that hospital's staff first abdicated their prerogatives. Technical assistants are needed for many medical procedures. Is it wise for staff members to demand that the hospitals provide them? Can institutional practice be prevented if increasing numbers of lay or paramedical assistants are furnished by lay employers?

If negative answers must be given to these questions, what can physicians do to keep the practice of medicine an individual service?

Let there be a revival of the concept that hospitals are places where doctors treat sick people.

Let doctors recognize that they share in the responsibility for hospital administration, and let them seek, rather than shun, trustee membership.

Let physicians cease demanding that hospitals provide lay and paramedical assistants, as new procedures come into use. Such people can and should be supported by the medical fees which they help physicians to earn.

Let the medical staff cease being subservient to the board of trustees of the hospital. Doctors must have their independence as of right and not by grace.

If the recent litigation does no more than reawaken physicians to the necessity of their correcting the trends that I have pointed out, it has been well worth the candle. American Medicine became the world's greatest by virtue of the individual, fee-for-service principle. I submit that it is worthy of preservation!

SURGERY, RADIOLOGY AND PATHOLOGY

On March 14 and 15, the School of Medicine at the University of Oklahoma will present its Fourth Annual Surgery, Radiology and Pathology Symposium, under the joint sponsorship of the Oklahoma chapters of the American College of Surgeons and the national radiology and pathology specialty groups.

Nine nationally prominent clinicians will participate in the discussion of the management of pediatric surgical patients: Donald B. Effler, M.D., (thoracic surgery), Cleveland Clinic; Robert E. Gross, M.D., (surgery), Boston; John W. Hope, M.D., Philadelphia; Benjamin H. Landing, M.D., (pathology), Cincinnati; Theodore C. Panos, M.D., (pediatrics), U. of Arkansas; Edgar J. Poth, M.D., (surgery), U. of Texas, Galveston; William L. Riker, M.D., (surgery), Chicago; Robert M. Smith, M.D., (anesthesiology), Harvard; and Ovar Swenson, M.D., (surgery), Boston.

For further information, address the Office of Postgraduate Education, University of Oklahoma Medical Center, 801 N.E. 13th Street, Oklahoma City 4.



Results From Open Intracardiac Surgery

Fifteen Cases of Ventricular Septal Defects Surgically Repaired Through The Use of an Artificial Cardiorespiratory System

E. R. DUFFIE, M.D.

DES MOINES

ALTHOUGH SPORADIC prior instances of the successful use of artificial heart-lung machines had been reported, the era of open intracardiac surgery began at Minneapolis in March, 1954, with the use of a human donor for cross circulation. In March, 1955, a group at the Mayo Clinic began to use successfully a heart-lung machine developed by John Gibbons, of Philadelphia. A few months later, the Minneapolis group began using a simpler heart-lung device, and on February 22, 1956, this type was first used at Iowa Methodist Hospital, Des Moines, on a human patient. Since then, reports of the use of various heart-lung machines have come from several other centers.

Ventricular septal defects were the first lesions to be repaired. Now the list of defects which have been successfully corrected through the use of this technic includes atrial septal defect, A-V canal, tetralogy of Fallot, isolated pulmonary stenosis, common ventricle, aortic stenosis and mitral insufficiency.

Originally, the survival of the patient was regarded as proof that the technic had been successful, but sufficient work has now been done so that the benefits obtained through these new surgical procedures can be compared with those achieved through the older technics. For example, it is now possible to decide whether the complete repair of the tetralogy of Fallot—i.e., the removal of the infundibular stenosis and the closure of the ventricular septal defect—is a significantly better operation than the systemic-pulmonary anastomosis that is still being done in most places.

Dr. Duffie is a resident in pediatrics at the Raymond Blank Memorial Hospital for Children, and this paper was awarded first prize in the 1957 Essay Contest of the Iowa Pediatrics Society.

The purpose of this article will be to review as critically as possible the results in 18 cases of intracardiac surgery done through the use of an artificial heart-lung machine. All patients had ventricular septal defects with or without pulmonary stenosis. In addition, three of them had other defects. One had a patent ductus arteriosus, one an endocardial fibroelastosis and one an extra band of tissue within the right ventricle similar to the bovine moderator band. These cases include seven patients operated upon at Minneapolis by Dr. C. W. Lillehei and 11 patients operated upon at Iowa Methodist by Dr. W. H. Myerly. In all cases, either the preoperative work-up or the surgery or both took place at the Raymond Blank Guild Heart Station of Iowa Methodist Hospital.

Two of the 18 patients died and were considered to have been operative deaths. One was a patient with a 4 cm. ventricular septal defect whose aortic outflow tract was stenosed by the repair and died at surgery. The second was a patient with a tetralogy of Fallot who died 40 hours postoperatively from unknown causes. Of the 16 surviving patients, one had a smooth postoperative course, and was taken to California three weeks after surgery. Though she has not returned, she was well at last report, but she is not included in any of the statistics from here on. Therefore, this report will include 15 patients followed from three to 24 months after surgery.

METHOD OF STUDY

The 15 patients were divided into three groups. In the first group were eight with uncomplicated ventricular septal defects. In the second group were five with pulmonary stenosis as well as ven-

tricular septal defect (i.e., tetralogy of Fallot), and in the third were two patients with ventricular septal defects complicated by some other defect. These three groups were studied in terms of their clinical signs and symptoms, and of their x-ray and electrocardiographic changes. In one case, repeat catherization studies were done. Results in the three groups will be compared, and cases illustrating postoperative results in each group will be described.

The clinical signs and symptoms which were studied for the three groups included exercise tolerance and dyspnea, appetite, "personality" and school work, and susceptibility to and occurrence of various minor infections, as well as signs and symptoms of cardiac failure, pneumonia or cyanosis. Physical findings pertinent to this discussion—particularly those of the heart and lungs—will also be presented.

Preoperative and postoperative chest x-rays were examined to determine what changes had occurred in the size of the heart and in the pulmonary vascular markings. In determining heart size, we used both subjective evaluation and the objective evidence provided by the so-called Danzer ratio. The evaluation of pulmonary vascular markings was entirely subjective, of course, but it was done by three people independent of one another, and the estimates of increase or decrease correlated very well in all cases. Postoperative electrocardiograms were compared with those that had been taken prior to surgery.

VENTRICULAR SEPTAL DEFECT WITHOUT ASSOCIATED DEFECTS

This group of patients comprised the largest number, and as will be shown, exhibited the most encouraging results. Eight patients in the group ranged from two to eight years of age. All eight had the typical symptoms of ventricular septal defects, namely decreased exercise tolerance and exertional dyspnea without cyanosis. In addition, all of the eight had the classical findings of systolic thrill and a harsh, low-pitched systolic murmur along the left sternal border. Adequate pulmonary second sounds were heard in all eight. Pre-operative pressures in the right ventricle ranged from 52 to 94 mm. Hg., with the average being 68 mm. Hg. Oxygen saturations were also elevated in the right ventricles of all eight. Five of the eight patients were operated on at the University of Minnesota, and the remaining three at Iowa Methodist Hospital. All operations were done at normal temperatures, and in seven out of eight, the artificial heart-lung apparatus was used as a means of by-passing the patient's own cardio-respiratory system. In the eighth patient's case, the boy's mother was used to by-pass the heart and lungs. Follow-up time ranged from three to 24 months, with the average being 10 months.

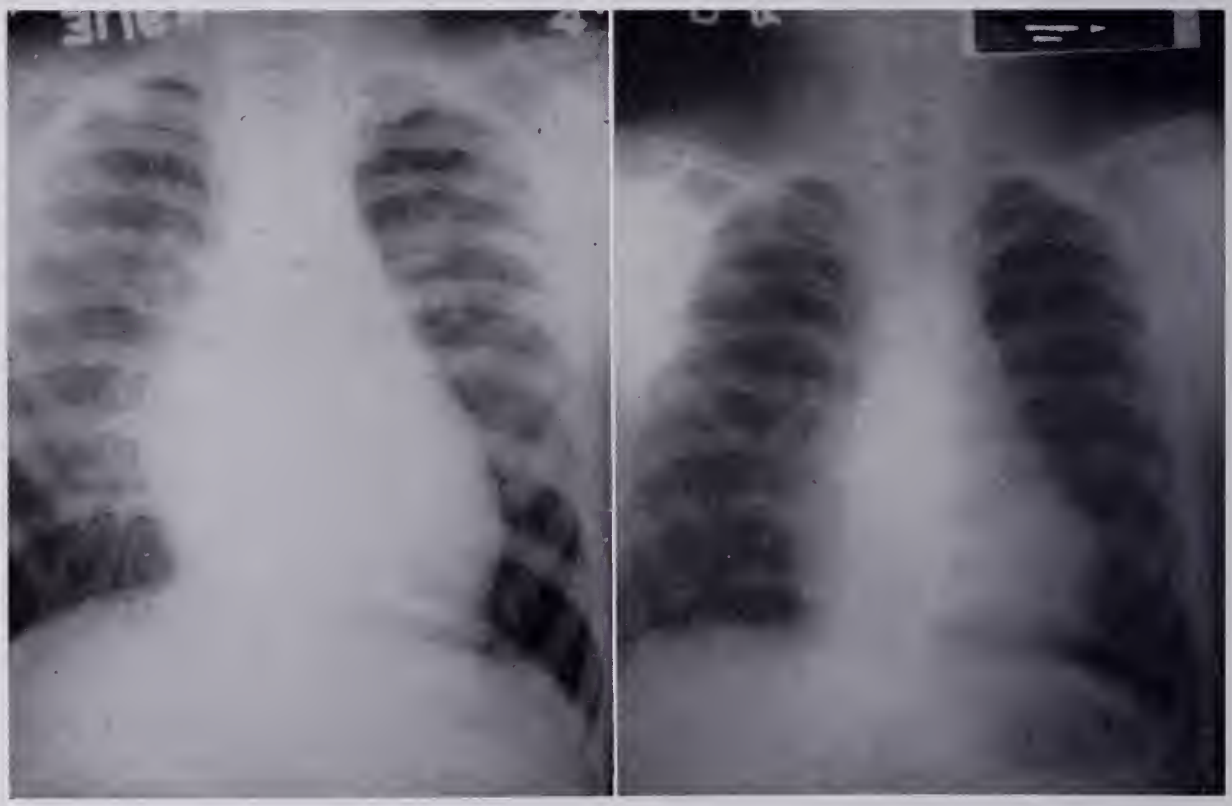


Figure 1. L. H., an eight-year-old boy with a ventricular septal defect. The preoperative film is shown on the left. Note the decreased heart size and decreased pulmonary vasculature in the postoperative film on the right.

Each set of parents was asked to give an overall impression of their child's health following surgery. The replies were unanimous and enthusiastic: "Very much better!" All eight children were reported to have had moderate to marked increases in their exercise tolerances and marked amelioration of their exertional dyspnea. Six of the eight were said to have improved appetites. The other two had always eaten well. Three of the children were said to be less irritable and fussy after surgery, and the remaining five were thought to be exhibiting no change in personality. Only three were of school age, but the teachers of those youngsters had commented on their improved behavior. "Improvement" in appetite and in personality is a nebulous sort of evidence, to be sure, but it is interesting to note that many of the parents testified to it without the help of leading questions. None of the children had had any signs or symptoms of cardiac failure, cyanosis or pneumonia following surgery. Five of the eight sets of parents noted spontaneously that their children had fewer minor illnesses and upper-respiratory infections than before surgery. They also felt the children were better able to cope with such infections as did occur. The exact significance of these findings is likewise unknown at present.

Discussion of the physical findings will be limited chiefly to murmurs and thrills. No effort will be made to compare preoperative and postoperative findings, for they were determined by different examiners at different times, and comparison would therefore be relatively meaningless. In none of these patients was a thrill palpable following surgery. Murmurs were noted in all eight of the patients postoperatively, though in three of them the murmurs were very minimal. In at least one, the murmur might well be missed in a routine examination. The typical murmur was a grade one to two, soft, blowing, high-pitched systolic murmur heard best along the left sternal border. These murmurs heard following surgery, it is presumed, were the result either of eddy currents around the Ivalon wedge sewn into the defect or, less probably, to an incomplete closure of the defect. Altered flow at the cardiotomy site is also a possibility. Long-term follow-up will be needed to determine the probable mechanism and ultimate outcome of these postoperative murmurs.

X-rays. The cardio-thoracic ratio in the preoperative chest x-rays ranged from .56 to .63, with the average being .59. One of the patients was excluded from this particular comparison because the right diaphragm obscured the right heart border, and the postoperative Danzer ratio could not be calculated. The postoperative ratios of the others ranged from .48 to .59, and the average was .54. In all cases, the Danzer ratio was decreased, the average amount of decrease being .04+, or approximately four or five per cent. Subjective evaluation of the heart size in seven of the eight showed decreased size postoperatively. In the eighth, there was judged to have been no change.

In all eight cases in this group, the pulmonary vascular markings were seen to have decreased. Because of the subjective nature of this evaluation, no attempt was made to quantitate the decrease, but in some instances the decrease was noted to be marked.

Figures 1 and 2 show the preoperative and postoperative chest films of two patients in this group. A marked decrease in heart size and pulmonary vascular markings can be noted in each of the postoperative films.

Electrocardiogram. Preoperatively, the P waves were normal in six of the eight cases, and were slightly increased in standard lead II and in aVf in the other two. Postoperatively, the P waves were normal in all eight cases. Table 1 shows the configuration of the QRS complexes in the eight cases. It will be seen that evidence of left ventricular hypertrophy was present in some degree in seven of the eight preoperatively. Evidence of either right ventricular hypertrophy or incomplete right bundle branch block was also present in seven of the eight. Postoperatively, the QRS complex in one patient returned to normal. Four of the eight now show evidence of complete right bundle branch block, and three patients retain evidence of left ventricular hypertrophy.

TABLE 1

QRS INTERPRETATIONS ON PATIENTS WITH UNCOMPLICATED VENTRICULAR SEPTAL DEFECT

Patient	*Preoperative*	*Postoperative*
D. R.	Incomplete right bundle branch block Left ventricular hypertrophy	Normal
R. R.	Right ventricular hypertrophy Left ventricular hypertrophy	Right ventricular hypertrophy
R. S.	Right ventricular hypertrophy Left ventricular hypertrophy	Complete right bundle branch block Left ventricular hypertrophy
B. S.	Incomplete right bundle branch block Left ventricular hypertrophy	Complete right bundle branch block Left ventricular hypertrophy
R. B.	Right ventricular hypertrophy	Incomplete right bundle branch block
J. G.	Left ventricular hypertrophy	Incomplete right bundle branch block
L. H.	Right ventricular hypertrophy Left ventricular hypertrophy	Complete right bundle branch block Right ventricular hypertrophy
H. I.	Incomplete right bundle branch block Left ventricular hypertrophy	Complete right bundle branch block Left ventricular hypertrophy

Table 2 shows the preoperative and postoperative T waves in the group. T waves were normal in four of the eight patients prior to surgery. The abnormal preoperative T waves are summarized in this table. The postoperative changes were very interesting. In five of the cases, the T waves were deeply inverted in V2 through V4 (the middle

chest leads). These changes in the middle chest leads were over the site of the cardiotomy. It is difficult to interpret these T-wave changes in those cases associated with right bundle branch block.

TABLE 2

T-WAVE CHANGES IN PATIENTS WITH UNCOMPLICATED VENTRICULAR SEPTAL DEFECT

Patient	*Preoperative*	*Postoperative*
D. R.	↑ in II, aVf	↓ V2, V4
R. R.	Normal	↓ V2, V3, V4
R. S.	↑ II, III, aVf	↓ V4
B. S.	↓ V3	↓ V2, V3, V4
R. B.	Normal	↓ V2, V4
J. G.	Normal	↓ V4 (Mild)
L. H.	↑ V4R, V1	↓ V2
H. I.	Normal	↓ V2, V4

Note the deeply inverted T waves in the middle chest leads (see Figure 4).

However, they are seen without the block in some cases and may well represent small areas of fibrous scar tissue in the right ventricular cardiotomies.

One aspect of the QRS complexes deserves comment also. It is the occurrence of complete right bundle branch block. Some feel that it represents the cardiotomy's interruption of the conduction pathway. Others feel that it may be due to putting a suture through the right bundle during the closure of the septal defect. That cardiotomy is not alone responsible for this block is suggested by the fact that the block is not to be found in all cases. Just what the mechanism for the block may be is a question that has not as yet been answered.

Figure 3 shows an example of the complete right bundle branch block, and Figure 4 shows the inverted T waves in V2 to V4.

Summary. Table 3 shows the eight cases in the group and their respective x-ray changes correlated with their postoperative exercise tolerances. It can be seen that in seven of the eight, the heart size is smaller. All of the Danzer ratios are decreased, and the pulmonary vascular markings are all decreased.

TABLE 3

POSTOPERATIVE X-RAY AND CLINICAL FINDINGS IN PATIENTS WITH UNCOMPLICATED VENTRICULAR SEPTAL DEFECT

	Danzer Ratio PREOP.	POSTOP.	*Heart Size*	*Pulm. Vas. Marking*	*Exercise Tolerance*
D. R.	.63	.52	↓	↓	↑
R. R.	.61	.59	↓	↓	↑
B. S.	.67	?	↓	↓	↑
R. S.	.61	.58	↓	↓	↑
R. B.	.59	.56	↓	↓	↑
J. G.	.56	.48	↓	↓	↑
L. H.	.57	.52	↓	↓	↑
H. I.	.59	.56	Unchanged	↓	↑
Average	.59	.54			

Note the nearly uniform improvement in the heart size and pulmonary vasculature, and the unanimous improvement in exercise tolerance.

The clinical results as measured by exercise tol-

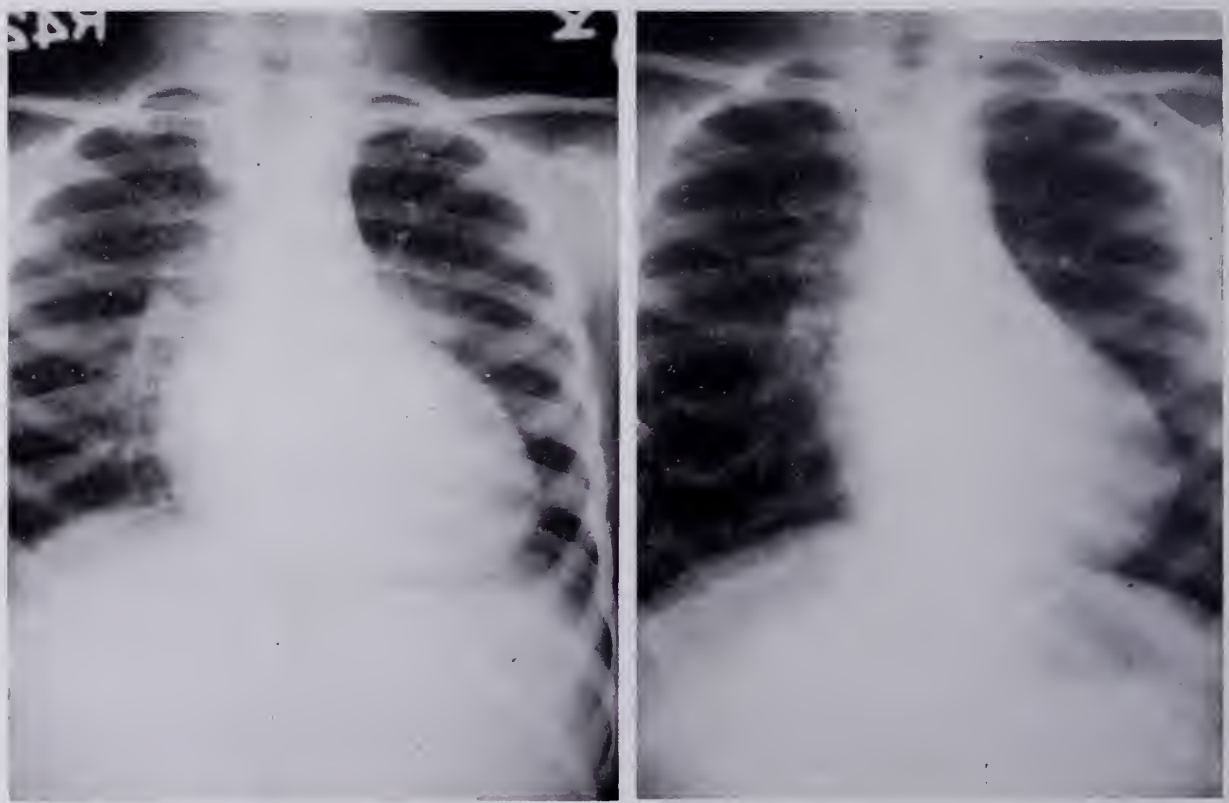


Figure 2. R. S., a six-year-old boy with a ventricular septal defect. The preoperative film is on the left. Note again the decreased heart size and decreased vascular markings in the film at the right, taken seven months postoperatively.

erance show uniform improvement. None of the eight had any signs of cardiac failure at the time this paper is written. All eight still have heart murmurs, though in all instances the murmur has decreased in intensity. None have the thrill that was noted prior to surgery.

Electrocardiograms of the eight patients revealed that four had complete right bundle branch block. T waves in the pre-cordial leads over the cardiotomy site suggest some degree of scarring in all cases. In one case the change has persisted for two years following surgery.

The results of surgery in this group seem encouraging indeed.

VENTRICULAR SEPTAL DEFECT WITH PULMONARY STENOSIS (TETRALOGY OF FALLOT)

Clinical Results. This group is composed of five children, ages 4 to 12. The preoperative signs and symptoms that were noted in this group were not those that are usually associated with a tetralogy, and for this reason they are worth mentioning in some detail. Only one patient in this group was cyanotic at all times, and that patient had asthma of moderate severity. Two were noted to be cyanotic around the lips and nails following exertion, and two had not been cyanotic at any time. All had decreased exercise tolerance and mild to moderate exertional dyspnea, but only one had episodes of the squatting that supposedly is characteristic of a tetralogy. Only one had clubbing of the digits. The patient with asthma had both the squatting and the clubbing.

Examinations prior to surgery produced remarkably similar findings in these children. All but one were below the sixteenth percentile in height, and all but one were below the fiftieth percentile in weight. Two of the latter were below the sixteenth percentile in weight. In each, the heart was clinically over-accessible. All had a thrill and a harsh systolic murmur along the left sternal border. Preoperative pressures in the right ventricle ranged from 68 to 136 mm. Hg., with the average being about 100 mm. Hg. Pulmonary artery pressures ranged from 12 to 48 mm. Hg., with the average being 27 mm. Hg. In the patient with asthma and persistent cyanosis, the oxygen saturations were not significantly elevated in the right ventricle, but in the remaining four they were. Four of the five patients were operated upon at Iowa Methodist Hospital, and the fifth at Minneapolis. The artificial heart-lung was used in all instances, at normothermia. At operation, all were found to have a ventricular septal defect and an infundibular stenosis of the pulmonary outflow tract. In addition, one also had a valvular pulmonary stenosis, and one had a patent ductus arteriosus.

The postoperative course of these five patients

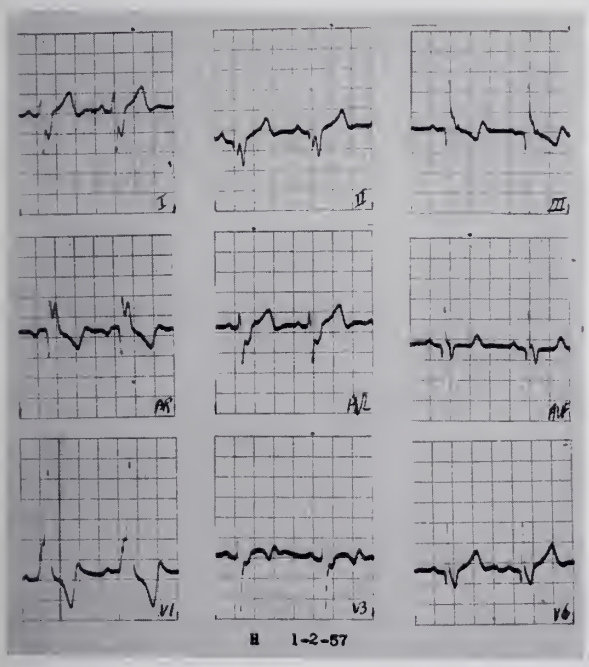


Figure 3. Electrocardiogram taken 13 months postoperatively following the repair of an uncomplicated ventricular septal defect. Note the complete right bundle branch block. This tracing is similar to those seen postoperatively in three others of the eight cases.

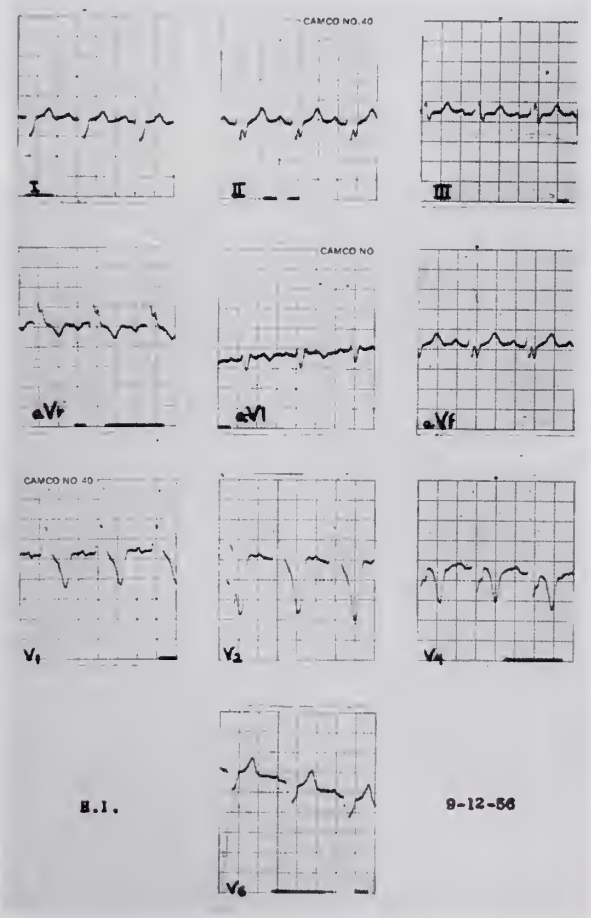


Figure 4. Electrocardiogram taken 10 months following repair of a ventricular septal defect. Note the complete right bundle branch block and also the deeply inverted T waves in chest leads V2 through V4. The T-wave changes are exactly like those in four others of the eight cases in this group.

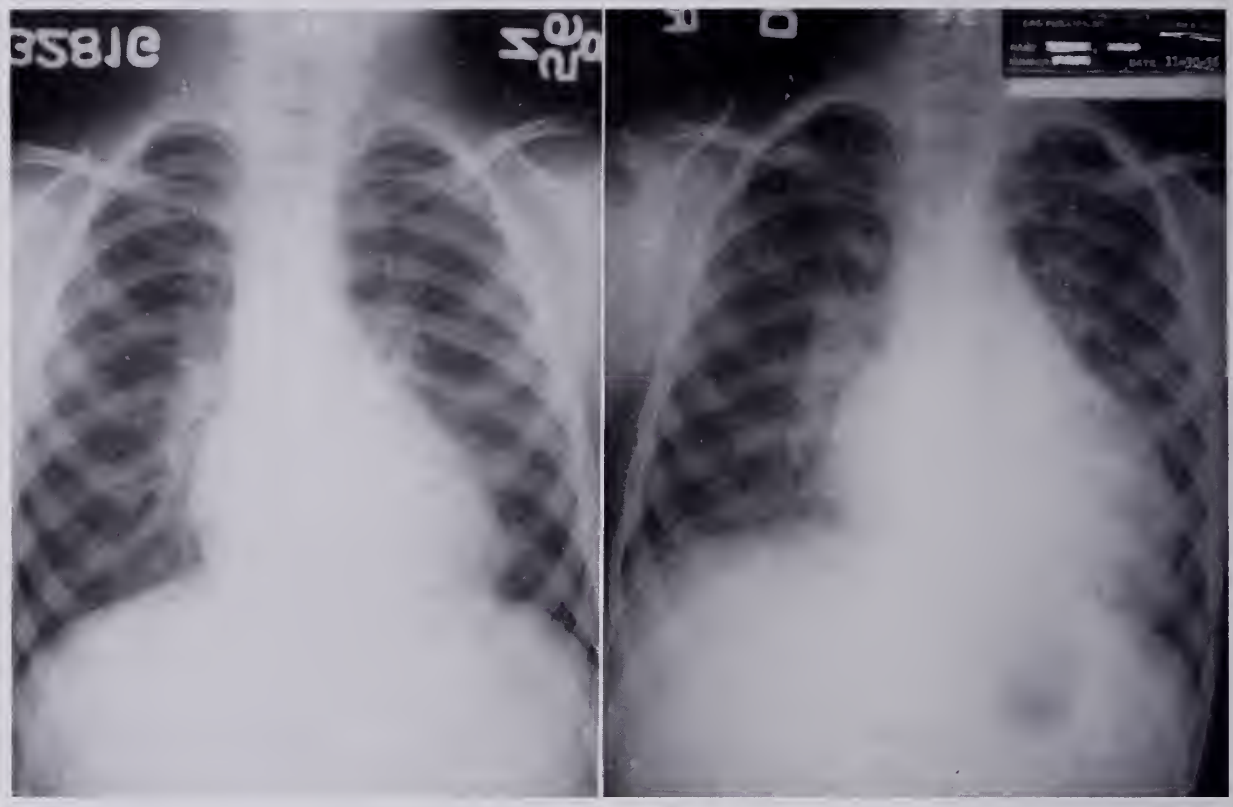


Figure 5. C. G., an 11-year-old boy with tetralogy of Fallot. Preoperative film on the left. Note the increase in heart size and pulmonary vasculature three months after surgery.

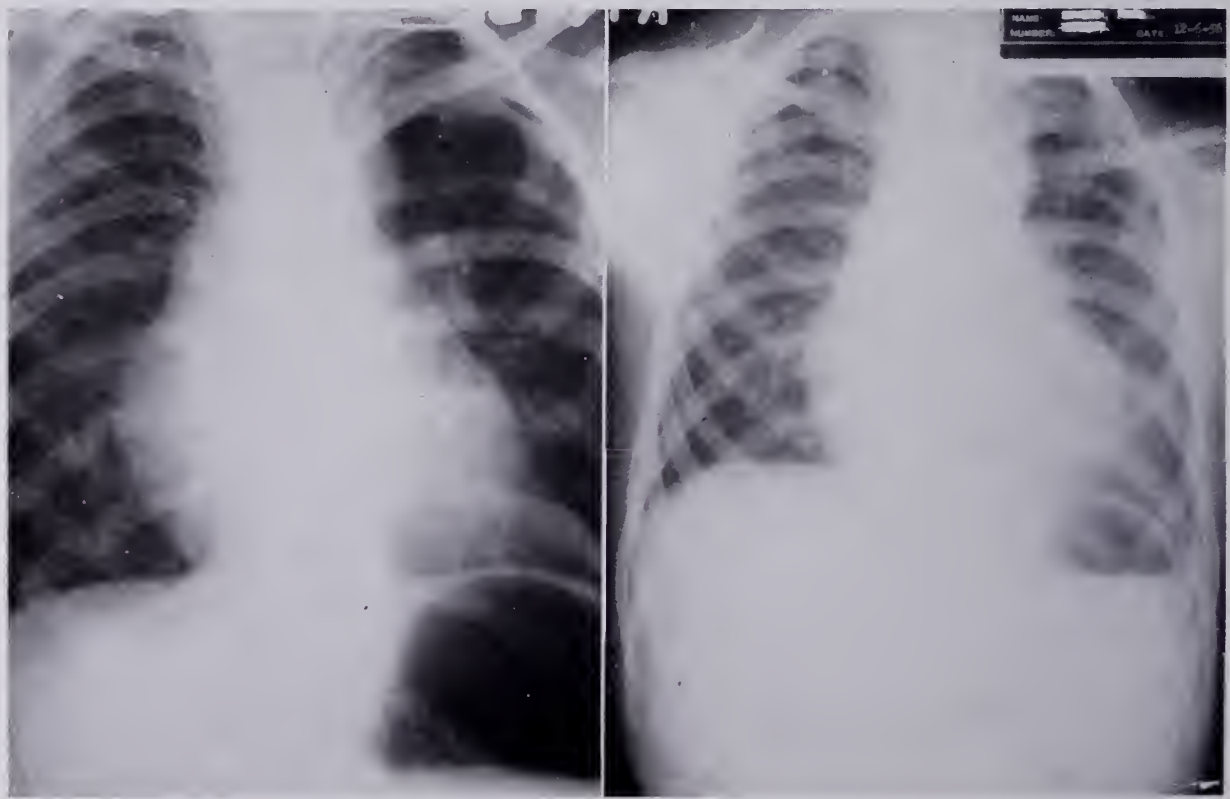


Figure 6. C. P., a four-year-old boy with tetralogy of Fallot. Note here also that the heart size and the pulmonary markings have increased seven months following surgery.

was not nearly so smooth as those of the previously described group. Three of the five required thoracotomies in the early postoperative period to control hemorrhage in the chest, and one of the three required two of them, was without a heart beat for nearly 40 minutes and was nearly given up for dead before finally recovering. Three of the patients had to have bronchoscopies performed to relieve mucous plugs and atelectasis. All eventually recovered, however.

As might have been anticipated, the postoperative results were not so striking in this group as were those in the first. Only one showed the same sort of marked improvement that characterized the patients operated upon for uncomplicated ventricular septal defects. Four of the five did show at least moderate improvement, according to their parents, and one was not changed from his preoperative condition. Exercise tolerance in four of the five was increased over that noted prior to surgery, but it was unchanged in the fifth. Appetites were generally improved, but not so markedly as in the first group. These children also were less irritable than before surgery. There had been no evidence of cardiac failure or pneumonia in this group, and no evidence of cyanosis even in the one who had been cyanotic prior to surgery. Two of the children had episodes of jaundice which were diagnosed as homologous serum hepatitis. The rest of the children had the usual run of colds and sore throats, and one had chicken pox. These minor illnesses were noted to be less frequent than they had been before surgery.

In three of the five, the heart was noted to be mildly to moderately enlarged to percussion, and in four, a minimal right ventricular over-accessibility was noted. Only two of the five had a thrill postoperatively, but all five retained murmurs of significant degree. The typical murmur was a grade three to four, high-pitched, blowing systolic murmur along the left sternal border. In the patient who had asthma and clubbing of the digits, it was noted that the clubbing was somewhat less pronounced than it had been prior to surgery, and his attacks of asthma were much less frequent and less severe.

In general, then, it can be said that these patients have done quite well following surgery, but that the clinical improvement has been somewhat less pronounced than in those who had surgery for uncomplicated ventricular septal defects.

X-rays. The cardio-thoracic ratio in the preoperative chest x-rays in patients with tetralogy of Fallot ranged from .42 to .62, the average being .53. The postoperative ratios ranged from .55 to .61, with the average being .57. Subjective evaluation of the heart size showed increase in four of the five cases. One remained unchanged. In four of the five patients the Danzer ratio increased, the average increase being .05. In one case—the patient whose heart appeared unchanged postoperatively—the Danzer ratio decreased.

In two of the five cases, the pulmonary vascular markings were increased postoperatively; in two more they were decreased; and in one they were unchanged. Again, there was no attempt at quantitative evaluation of these changes.

Figures 5 and 6 show pre- and postoperative x-rays of two patients from this group.

Cardiac Catheterization. The one patient on whom we repeated this procedure was a seven-year-old girl with a ventricular septal defect, pulmonary stenosis and patent ductus arteriosus. Her findings are summarized in Table 4.

TABLE 4

CATHETERIZATION OF PATIENT R. G.

	Oxygen Saturation		*Pressure*	
	PRE-OPERATIVE	POST-OPERATIVE	PRE-OPERATIVE	POST-OPERATIVE
Right atrium	68	83	6/0	
Right ventricle	76	85	136/2	40/2
Pulmonary artery	78	83	12 (Mean)	38/14

Cardiac catheterization of a seven-year-old girl with a ventricular septal defect, infundibular pulmonary stenosis and a patent ductus arteriosus. Note particularly the marked improvement in the right ventricular pressure following surgery.

Electrocardiograms. The P waves were normal in three of the five cases, diphasic in standard lead II in one case and somewhat tall in II in the other case. Postoperatively, the P waves were normal in four of the five, and remained diphasic in the fifth. Table 5 summarizes the QRS complexes of the five cases. It can be seen that preoperatively all five had electrocardiographic evidence of right ventricular hypertrophy and that postoperatively three of the five have complete right bundle branch blocks. Also, two patients now have some evidence of left ventricular hypertrophy that had not been seen preoperatively.

TABLE 5

QRS COMPLEXES, TETRALOGY PATIENTS

Patient	*Preoperative*	*Postoperative*
C. P.	Right ventricular hypertrophy Left ventricular hypertrophy	Complete right bundle branch block
F. L.	Incomplete right bundle branch block	Complete right bundle branch block Left ventricular hypertrophy
C. G.	Right ventricular hypertrophy	Right ventricular hypertrophy
J. S.	Incomplete right bundle branch block	Incomplete right bundle branch block
R. G.	Right ventricular hypertrophy	Complete right bundle branch block Left ventricular hypertrophy

Note the occurrence of left ventricular hypertrophy in two patients that had not been seen before surgery.

T waves were normal preoperatively in four of the five, and were somewhat tall in standard leads II, III and aVf in the other. Following surgery, the T waves were deeply inverted in V2, 3 and 4 in

four out of the five patients. One was normal. These changes in the T waves were exactly like those in the previous group. Table 6 summarizes these findings.

TABLE 6
T WAVES IN TETRALOGY PATIENTS

Patient	*Preoperative*	*Postoperative*
C. P.	Normal	↓ V2, V3, V4
F. L.	Normal	↓ V2, V3, V4
C. G.	Normal	↓ V2, V4
J. S.	Normal	Normal
R. G.	↑ in II, III, aVf	↓ V2, V4

The deeply inverted T waves in this group were the same as for the first group.

Summary. Table 7 shows the x-ray changes in this group of patients and their corresponding exercise tolerances. It will be seen that the heart appeared larger in four of the five, and was unchanged in the fifth. The Danzer ratios also were larger in four and smaller in the fifth.

TABLE 7
POSTOPERATIVE X-RAY AND CLINICAL FINDINGS IN PATIENTS WITH TETRALOGY OF FALLOT

Patient	*Danzer Ratio* PREOP.	POSTOP.	*Heart Size*	*Pulm. Vas. Marking*	*Exercise Tolerance*
C. P.	.53	.61	↑	↑	Unchanged
F. L.	.51	.55	↑	↓	↑
C. G.	.42	.50	↑	Unchanged	↑
J. S.	.62	.60	Unchanged	↑	↑
R. G.	.57	.58	↑	↓	↑
Average	.53	.57			

The increased heart size noted in four of the five can be explained on the basis of increased pulmonary blood flow following closure of the ventricular septal defect and removal of the infundibular stenosis. This increase in pulmonary flow ultimately goes to the left ventricle, and that fact apparently accounts for the enlargement and for the occurrence of left ventricular hypertrophy in the electrocardiogram.

Pulmonary vascular markings were increased in two, decreased in two and unchanged in the other. In spite of those seemingly mediocre results, the exercise tolerance and the general clinical findings were improved in four of the patients and were at least as good in the fifth as they had been before surgery. None of the five had any signs of failure, and no cyanosis was seen in the group. All five had significant murmurs and one still had a systolic thrill following surgery. Electrocardiograms of the group reveal complete right bundle branch block in three patients. In addition, two who had no evidence of left ventricular hypertrophy prior to surgery now have that finding. Four of the five have the T-wave changes that you are now familiar with that may be part of the postoperative changes of the cardiotomy. I think that in general we are encouraged with the results in these patients, though they are not so gratifying as the results in the previous group.

VENTRICULAR SEPTAL DEFECTS WITH OTHER DEFECTS

Our final group consists of two patients who are in no way similar to one another except that each had a ventricular septal defect complicated by another lesion.

One of the patients is a five-year-old boy with repeated episodes of failure and pneumonia, and with typical findings of ventricular septal defect. At operation, he was found to have a marked endocardial fibroelastosis of the left ventricle only. The ventricular septal defect was repaired in the usual fashion, and postoperatively his course was unremarkable. We examined this boy 13 months after surgery and found him to be doing well. His mother stated that he had a mild to moderate increase in exercise tolerance, and that his appetite had improved. He has shown no evidence of failure or cyanosis, and his mother says that he has had fewer colds, etc., than before. Percussion showed that his heart was enlarged to the anterior axillary line, and a moderate over-accessibility was noted. A systolic thrill was noted over the precordium, and a grade four systolic murmur could be detected along the left sternal border. No diastolic murmur was noted. X-rays showed no change in the size of his heart, but there had been a decrease in pulmonary vascular markings. His electrocardiogram, which had shown both right and left ventricular hypertrophy prior to surgery, now reveals complete right bundle branch block and left ventricular hypertrophy. The T waves were deeply inverted in V2-V4 prior to surgery, and we ordinarily associate that finding with endocardial fibroelastosis, but following surgery the T waves in these leads were still inverted. Whether these findings now represent the changes of endocardial fibroelastosis or are the consequence of cardiotomy scar, we do not know. We have reason to suspect that they will behave as do those of the patients in the other groups, and hence are actually changes that we have associated with a cardiotomy.

The remaining patient is a five-year-old girl who had no typical symptoms, but exhibited the findings characteristic of ventricular septal defect. A murmur had been heard since birth, but at no time had any signs of cyanosis, cardiac failure, pneumonia or growth failure been noted. In September, 1955, cardiac catheterization revealed the following results. The systolic pressures in the right ventricle were about 95 mm. Hg. and in the pulmonary artery 54 mm. Hg. Oxygen saturations were 60, 74 and 85 per cent in the right atrium, right ventricle and pulmonary artery, respectively. Despite the conspicuous lack of symptoms, and in view of the rather advanced findings, it was decided that the defect should be repaired. In August, 1956, the patient underwent surgery, with the assistance of the artificial heart-lung.

When the right ventricle had been opened, a huge band of muscle was seen to traverse and nearly occlude the right ventricular cavity. The aortic valve was seen above and behind this band through a large ventricular septal defect. The band had to be divided to make the repair possible. When the repair had been completed, the band was removed from its attachments to the septum and the free wall of the ventricle. The patient's postoperative course was punctuated by episodes of cardiac failure—primarily right heart failure—of mild to moderate degree. She was discharged from the hospital on the twentieth postoperative day, on 0.06 mg. of Digitoxin daily. Since that time, she has had repeated episodes of cardiac failure with dyspnea, orthopnea, edema and ascites. These episodes have been treated with the usual bed rest, mercurials, oxygen and digitalis, and the results have been fair. She recently had an eposide of homologous serum hepatitis, and made an amazingly good recovery.

Just why this girl has had more difficulty, in terms of heart failure, than any other of the patients is, of course, open to speculation. We feel, however, that the removal of the large moderator band from the right ventricle may have been the precipitating factor in her chronic heart failure. While this band remained intact, the right ventricle was prevented from dilating very much. When it had been removed, the preventive mechanism no longer existed, and persistent right ventricular failure supervened. As the right ventricle accustoms itself to its completely altered dynamics, we hope that the patient will improve clinically.

CONCLUSIONS

Open cardiac surgery through the use of an artificial cardiorespiratory system has now passed its third birthday. In its brief history, much has been done to improve both the surgery itself and the various machines that are used to provide extracorporeal circulation. In an effort to evaluate these new technics, I have presented 15 children with ventricular septal defects who have been subjected to one such technic.

From the foregoing review of results, some conclusions can be drawn. First, the artificial oxygenator is an efficient and useful means of bypassing the patient's heart and lungs so that the surgeon may open the heart, visualize the pathologic structures and make the necessary corrections in a bloodless field. Second, patients with uncomplicated ventricular septal defects can be expected to have very good results, but when additional lesions become evident either before or during surgery, the prognosis becomes poorer. Because of the limited number of patients followed thus far, I am not prepared to say that the more severe the additional lesions, the poorer the results. Many more cases must be operated upon and must be given appropriate postoperative examinations before these observations become statistically reliable. Third, certain x-ray and electrocardiographic changes, the natures of which are as yet incompletely understood, have been noted so frequently that it seems we can regard them as virtually characteristic of the "post-cardiotomy picture." Fourth, from even these few cases it can be seen that the ultimate prognosis for patients with intracardiac lesions is changing rapidly. With the development of new technics and the refinement of older ones, children who might have been assigned to a short life span of reduced activity may, in the near future, be encouraged to look forward to a reasonably normal existence, free of the distressing stigmata of severe congenital heart disease.

ADDENDUM

Since this article was submitted for publication, an additional 13 patients have undergone repair of ventricular septal defects through the use of the artificial heart-lung. The present figures show that 17 out of 19 patients who had uncomplicated ventricular septal defects are surviving from six weeks to three years postoperatively, and that eight out of 10 patients who underwent repair of a tetrad defect are surviving from seven weeks to three years following surgery.

In addition, the patient discussed last in the preceding section of this paper, the five-year-old girl who had a large moderator band across the right ventricle and persistent right heart failure following surgical repair of her ventricular septal defect, underwent a second operation for the repair of a residual defect. She died 12 hours postoperatively, and at postmortem no apparent cause of her sudden death was found.

TINY BABIES NEED POLIO SHOTS

Polio shots for infants as young as two months were recommended in a JAMA article (January 11) by Dr. Lauri D. Thrupp, chief of the poliomyelitis surveillance unit of the USPHS Communicable Disease Center at Atlanta. Though at present shots are generally begun at six months of age, several groups of researchers have found that many infants lose their immunity before that age.

Dr. Thrupp said that the American Academy of Pediatrics has consequently recommended beginning the shots at two months of age. The third shot should follow the first two by at least six or seven months.

During 1956, the attack rates of paralytic polio were highest among one-year-old children, and the largest proportion of cases occurred in the under-five-year group. Dr. Thrupp said, "Preliminary data for 1957 indicate that a comparably high proportion of paralytic cases occurred in preschool-age children."

Cardiac Malformations in Infants Dying In the Neonatal Period

WALTER W. LARSON, M.D.

DES MOINES

INCREASINGLY EFFECTIVE surgical procedures have advanced the importance of early recognition of congenital cardiac lesions. Surgical correction of defects even in the neonatal period is becoming a practical reality. In 1955, Mustard and his associates reported two cases in which successful correction of coarctation of the aorta was performed in the neonatal period.[7] If these surgical technics are to be applied, the cardiac malformations that are present must be diagnosed promptly and accurately.

The purpose of this article is to present the cardiac lesions found in 46 infants who died during the first month of life, to review briefly the pathologic findings of the major groups and to attempt a correlation between the clinical findings and the autopsy diagnoses.

During the period from January 1, 1946, to December 31, 1955, a total of 21,359 live births were recorded at Iowa Methodist Hospital, Des Moines. Major cardiac malformations were found in 34 of the autopsied infants who died during the first month of life. Thus, the incidence was 1.5 per 1,000 live births, a rate that compares satisfactorily with the overall incidence of 3 per 1,000 which British authors[6] have placed upon congenital heart disease at birth.

Although cardiac malformations are found in approximately 10 per cent of the neonatal deaths,[12] death may or may not be associated with the cardiac defect. This study presents the major cardiac malformations found in the autopsy of 46 neonatal infants dying of any cause. Patent ductus arteriosus and patent foramen ovale were not considered defects because they are conditions normally present in this age group.[3]

Table 1 indicates the types of malformations found at autopsy. A comparison of this study with that of Ober and Moore,[10] in their analysis of 100 cardiac malformations found in infants dying in the neonatal period, and that of Abbott,[11] in her analysis of 120 similar cases, is made in Table 2. From the comparison, it can be seen that the incidence of aortic atresia compares with that of Abbott, but is lower than that of Ober and Moore. Examples of cor triloculare and cor biloculare, as defined by Gould,[4] were found in this series, but

Dr. Larson is a resident in pediatrics at the Raymond Blank Memorial Hospital for Children, and his paper won second prize in the 1957 Essay Contest of the Iowa Pediatrics Society.

TABLE 1

CARDIAC MALFORMATIONS IN INFANTS DYING IN THE NEONATAL PERIOD

(46 CASES—1946 TO 1955)

Malformation	*Number of Cases*
Ventricular Septal Defect	
Defects unassociated with cardiac lesions	6
Defects unassociated with intracardiac lesions, but associated with double aortic arch	2
	8
Aortic Valve Atresia	
Aortic atresia unassociated with other valvular involvement	2
Coexistent aortic and mitral atresia	2
Aortic atresia wtih other cardiac lesions	2
	6
Auricular Septal Defect	5
Coarctation of the Aorta	5
Truncus Arteriosus	
Cor triloculare biatriatum	3
Cor biloculare	1
With ventricular septal defect	1
	5
Transposition of the Great Vessels	
Defect unassociated with other cardiac lesions	2
Defect associated with other cardiac lesions	2
	4
Pulmonary Valve Atresia	
Unassociated with other cardiac lesions	3
Associated with ventricular septal defect	1
	4
Miscellaneous	
Tricuspid atresia	1
Mitral stenosis	1
Aortic stenosis	1
Coexistent aortic and mitral stenosis	1
Endocardial fibroelastosis	1
Partial persistent truncus	1
Pulmonary regurgitation	1
Idiopathic cardiac dilatation	1
Unclassified	1
	9

TABLE 2

COMPARISON OF FREQUENCY OF SPECIFIC TYPES OF CARDIAC MALFORMATIONS FOUND IN INFANTS DYING IN THE NEONATAL PERIOD

Malformation	*Ober and Moore* PER CENT	*Abbott* PER CENT	*Present Series* PER CENT
Ventricular Septal Defects	19.0	(not available)	17.0
Aortic Stenosis or Atresia	1.0	15.5	15.0
Cor Triloculare and Cor Biloculare	12.0	(not available)	0.0
Coarctation of the Aorta	11.0	8.3	10.8
Persistent Truncus Arteriosus	4.0	(not available)	10.8
Transposition of Great Vessels	27.0	13.3	8.7

were placed under the category of persistent truncus arteriosus with which they are associated. This accounts for the higher incidence of persistent truncus arteriosus that was observed in this study, and the absence of any cases classified as either cor triloculare or cor biloculare.

PATHOLOGIC FINDINGS

There were five cases of atrial septal defects unassociated with other cardiac abnormalities, and in all cases the cause of death was unrelated to the cardiac disease. Death occurred within the first 20 hours of life in all infants, and was due to such entities as severe pulmonary atelectasis, hemorrhagic disease of the newborn involving the lungs and other organs, hyaline membrane disease and bilateral agenesis of the lungs. The defects present were due to true abnormalities in the formation of the septum, with either a short valve or an abnormally large foramen ovale.

Ventricular septal defects may be located in the lower muscular portion or the upper membranous portion of the septum, but the latter type is by far the more common. Membranous defects may be isolated or be associated with other intracardiac defects, but only eight cases of isolated defects or defects not associated with abnormal origins of great vessels are considered under this heading. The defects were located in the membranous portion and ranged in size from 0.3 to 1.0 cm. A 1.0 cm. defect in an infant would be considered to be one of moderate size, using the aortic size for comparison. These defects are not usually thought of as being capable of producing death in this period, and indeed the cause of death was non-cardiac in the majority of cases in this series. However, two infants died during their second week of life, one with bronchopneumonia and one with acute pulmonary edema. Both deaths may have been subsequent to the pulmonary congestion produced by the cardiac malformation. A third infant died on the twenty-fifth day in typical right heart failure. Such right heart failure is probably due to the large left-to-right shunt which produces an excessive strain on the right side of the heart.[3]

There were five examples of coarctation of the aorta, and in each case the severe narrowing of the aorta was located distal to the origin of the left subclavian artery and proximal to the entrance of a large patent ductus arteriosus. Non-cardiac disease produced death in the three cases in which the heart itself was normal, but there was right auricular and right ventricular dilatation in the two cases which were apparently well until two days before death, when signs of right heart failure began to develop.

Atresia of the aortic valve was found in six cases, and the pathologic picture was that which is shown in Figure 1. In each case, a hypoplastic left ventricle and a diminutive aorta were found associated with a greatly enlarged right auricle and ventricle and a dilated pulmonary artery. The course of circulation in such a defect is from the right auricle to the right ventricle, out the pulmonary artery to the lungs, returning to the left auricle and passing through the foramen ovale and back to the right side of the heart. It can be seen that systemic circulation is maintained only through the ductus arteriosus and that coronary blood flow is greatly embarrassed. The infants with this entity were normal for the first few days of life, but they later developed intermittent episodes of cyanosis which probably were the result of the poor systemic or coronary circulation.

A failure of the pulmonary artery and aorta to divide properly produced five cases of truncus arteriosus. Three of these cases were cor triloculare biatriatum, one had complete absence of both septi, and the remaining patient had a ventricular septal defect associated with the truncus arteriosus (Figure 2). The circulation in this entity allows mixing of the oxygenated and unoxygenated blood because of the septal abnormality and the single exit channel from the heart. If the pulmonary vessels arising from the truncus are large, more blood will flow to the lungs, and the degree of cyanosis will be less than if the pulmonary vessels were small. This variation in structure accounts for the varying degrees of cyanosis seen clinically in this condition, although the majority of infants were cyanotic at birth.

With transposition of the great vessels, the pul-

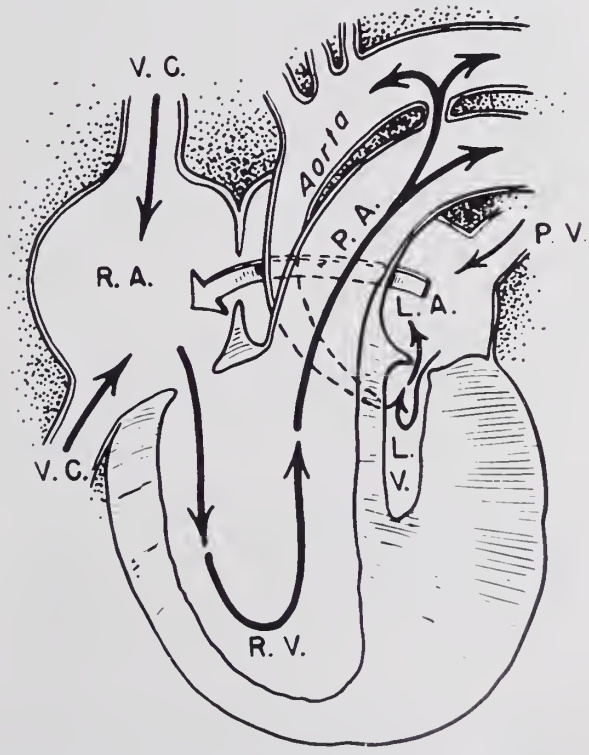


Figure 1. Complete atresia of the aortic valve. Note the enlarged right auricle, right ventricle and pulmonary artery, and the hypoplastic left ventricle and aorta.

monary artery arises from the left ventricle and the aorta from the right ventricle, because of a straight division rather than the normal, spiral division of the common arterial trunk. In this condition, blood flow is entirely independent in the two circulations except for any communication which is established through the septi or the ductus arteriosus. Cyanosis was present in the majority of cases at birth and was of a continuous nature. Right ventricular enlargement was noted at autopsy because the ventricle worked against systemic pressure through the transposed aorta.

There were four cases of complete atresia of the pulmonary valve. In one case both right ventricular hypertrophy and an interventricular septal defect were present. Thus, that malformation could be classified as a tetralogy of Fallot. It is interesting to note that although tetralogy of Fallot accounts for 15 per cent of congenital heart disease in children under two years of age,[18] only one neonatal death was the result of this type of lesion. Cyanosis was present in all cases immediately after birth and was continuous until death, which occurred anytime from the second to the ninth day.

CLINICAL FINDINGS

Each clinical history was reviewed for the presence of clinical signs or symptoms which might have led attending physicians to an accurate diagnosis of the lesion before the infant's death.

In these cases, signs such as precordial bulging of the chest, precordial pulsation or the presence of a thrill was not noted. The absence of femoral pulsations enabled doctors to make the diagnosis of coarctation before death, however. Fifteen per cent of the cases demonstrated the presence of a murmur, a percentage that closely approximates that reported by Ober and Moore. Although a murmur is usually associated with congenital heart disease, it must be remembered that these infants did not enter the age group in which murmurs typical of their respective lesions could be found.

TABLE 3

INCIDENCE OF MURMURS WITH REGARD TO TYPE OF DEFECT PRESENT

Malformation	*Percentage With Murmurs*
Ventricular Septal Defect	100*
Aortic Atresia, Mitral Atresia and Combined Atresia of Both Valves	50
Transposition of the Great Vessels	25
Coarctation of the Aorta	0
Truncus Arteriosus	0
Pulmonary Valve Atresia	0

* Present in the one patient dying of cardiac disease at the age of 25 days.

Entities in which murmur were found (Table 3) were aortic atresia and transposition of the great vessels, except for one case of ventricular septal defect in which the patient lived long enough to develop a typical murmur. No murmurs were heard in the cases of atrial septal defect, coarctation of the aorta, truncus arteriosus or pulmonary atresia.

TABLE 4

TIME OF APPEARANCE OF CYANOSIS IN PATIENTS WITH CARDIAC MALFORMATION

Malformation	*Onset of Cyanosis*	
	BIRTH Per Cent	FIRST WEEK Per Cent
Pulmonary Atresia	100	
Transposition of the Great Vessels	75	25
Truncus Arteriosus	75	25
Aortic Atresia	0	80
Coarctation of the Aorta	0	0
Ventricular Septal Defect	0	0

Cyanosis was the universal clinical feature in this series. Its evaluation was made difficult by the presence of pulmonary disease in a number of cases. However, pulmonary disease was diagnosed frequently enough from clinical signs and x-ray to permit the statement that in the absence of pulmonary disease, the early onset of cyanosis was quite significant in pointing to the type of lesion present (Table 4). Severe cyanosis appeared at birth in all instances of pulmonary atresia. It was also present at birth in 75 per cent of the infants with transposition or truncus arteriosus, and it developed within the first few days in the other 25 per cent. In aortic atresia, the cyanosis was intermittent and did not develop in any case until after the third day of life. The cyanosis which was present with coarctation of the aorta and ventricular

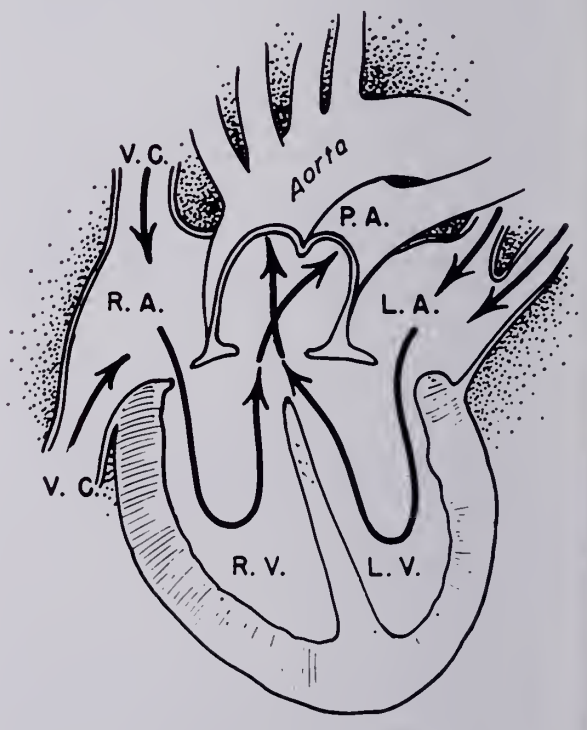


Figure 2. Persistent truncus arteriosus with interventricular septal defect.

septal defect developed only after the second or third week of life, with the onset of right heart failure.

X-ray examination of the heart was performed in 72 per cent of the cases and revealed enlargement in 70 per cent. It has been stated by Neuhauser[9] that few cardiac malformations produce enlargement of the heart in the neonatal period. However, if one considers infants who die of congenital malformations during the neonatal period, the incidence of enlargement on x-ray increases greatly. The cases of greatly enlarged hearts noted soon after birth were those of truncus arteriosus and aortic atresia. Cyanotic infants with transposition of the great vessels showed no early enlargement, but demonstrated moderately severe enlargement before death. The group of infants with pulmonary atresia did not show enlargement except for the one patient with tetralogy of Fallot, whose heart was moderately enlarged (Table 5).

TABLE 5

X-RAY EVIDENCE OF CARDIAC ENLARGEMENT

Malformation	*Cardiac Enlargement on X-ray*	
	FIRST WEEK OF LIFE	SECOND WEEK OF LIFE
Truncus Arteriosus With Common Ventricle	Marked enlargement	(All deceased)
Aortic Atresia	Marked enlargement	Marked enlargement
Transposition of the Great Vessels	None	Moderately severe enlargement
Pulmonary Atresia	None to moderately severe enlargement	(All deceased)
Coarctation of the Aorta		Moderate enlargement later with development of failure
Ventricular Septal Defect		Moderate enlargement later with development of failure

Electrocardiograms were not obtained on a large enough portion of the infants in this series to permit an evaluation of this diagnostic aid. Even though there may normally be some right ventricular hypertrophy in this period, indications of excessive right ventricular hypertrophy are quite significant.[1] When there is left ventricular hypertrophy in the neonatal period, a diagnosis of tricuspid valve atresia can be made with certainty.[2]

It was apparent that major cardiac defects were more common in infants weighing 2,500 Gm. or less, for 26 per cent of the total group were classified as premature. That finding correlates with Richards' study[12] which indicated that cardiac malformations are three times as common in premature infants. Further, there apparently is a somewhat significant sex differential, for 60 per cent of the infants were males, and certain types of lesions seemed quite definitely sex-linked. Seventy per cent of cases of transposition of great vessels, for example, are in males.[5] Congenital abnormalities should suggest that a cardiac malformation may also be present. In this series 38 per cent of the infants had one or more congenital defects, and they occurred most often in association with ventricular septal defects, truncus arteriosus or pulmonary atresia. The malformations involved all of the primary germ layers, but anomalies of the ectodermal germ plasm such as supernumerary digits, absence of thumb and malformations of the external ear were seen with the greatest frequency.

The average age of the mothers of infants with cardiac defects was 25 years and 6 months, as contrasted with the average age of 23 years for all mothers delivering infants during the period covered by the study. The median age of the mothers of infants with cardiac defects was 29 years. Thus, our findings in this respect correlate with those of other investigators in showing that cardiac malformations are more likely in infants born to older women.[3]

From the correlation of clinical and pathologic findings on infants dying during the neonatal period, it can be said that generally: (1) in a male infant who is continuously cyanotic from birth, has a heart of normal size on early x-ray but later shows enlargement of the heart, and does not have a murmur, the most likely diagnosis is transposition of the great vessels; (2) in an infant who is cyanotic from birth and has a normal-sized heart and no murmur, the most likely diagnosis is pulmonary atresia; (3) in an infant who has intermittent cyanosis starting a few days after birth and has an enlarged heart and a murmur, the most likely diagnosis is aortic atresia; and (4) in an infant who develops failure in the first few weeks of life, has diminished femoral pulsations or none at all, and develops an enlarged heart, the most likely diagnosis is coarctation of the aorta.

SUMMARY

1. Cardiac malformations in 46 infants who died in the newborn period have been presented. The infrequency of tetralogy of Fallot as a cause of death during this period has been pointed out.

2. The incidence of murmurs in infants dying of congenital heart disease in the neonatal period is low.

3. Continuous cyanosis from birth is most common in pulmonary atresia, transposition of the great vessels and truncus arteriosus. Intermittent episodes of cyanosis are most common in aortic valve atresia.

4. Cardiac enlargement is a common finding in infants dying of congenital heart disease in the newborn period.

5. Congenital heart disease is quite commonly associated with other congenital defects and is more common in premature infants and in infants born to older women.

REFERENCES

1. Braunwald, E., Sapin, S. O., Donoso, E., and Girshman, A.: Study of electrocardiogram and vectorcardiogram in congenital heart disease; III Electrocardiographic and vectorcardiographic findings in various malformations. Am. Heart J., **50**:823-843, (Dec.) 1955.
2. Brink, A. J., and Neill, C. A.: Electrocardiogram in congenital heart disease, with special reference to left axis deviation. Circulation, **12**:604-611, (Oct.) 1955.
3. Christie, A.: Normal closing time of foramen ovale and ductus arteriosus, an anatomic and statistical study. Am. J. Dis. Child., **40**:323-326, (Aug.) 1930.
4. Gould, S. E., ed.: Pathology of the Heart. Springfield, Illinois, Charles C Thomas, 1953.
5. Keith, J. D., Neill, C. A., Vlad, P., Rowe, R. D., and Chute, A. L.: Transposition of great vessels. Circulation, **7**: 830-838, (June) 1953.
6. MacMahon, B., McKeown, T., and Record, R. G.: Incidence and life expectation of children with congenital heart disease. Brit. Heart J., **15**:121-129, (Apr.) 1953.
7. Mustard, W. T., Rowe, R. D., Keith, J. D., and Sireh, N.: Coarctation of aorta, with special reference to first year of life. Ann. Surg., **141**:429-439, (Apr.) 1955.
8. Nadas, A. S.: Pediatric Cardiology. Philadelphia, W. B. Saunders Co., 1957.
9. Neuhauser, E. B. D.: Contributions of roentgenologist. Report of the Fourteenth M & R Pediatric Research Conference. Columbus, Ohio, M & R Laboratories, 1955, p. 53.
10. Ober, W. B., and Moore, T. E., Jr.: Congenital cardiac malformations in neonatal period, an autopsy study. New England J. Med., **253**:271-275, (Aug. 18) 1955.
11. Abbott, M.: "Congenital Heart Disease." In: Nelson's Looseleaf Medicine, New York, Nelson, 1937, vol. IV, p. 307 (Referred to by Ober and Moore).
12. Richards, M. R., Merritt, K. K., Samuels, M. H., and Langmann, A. G.: Congenital malformations of cardiovascular system in series of 6,053 infants. Pediatrics, **15**:12-32, (Jan.) 1955.
13. Selzer, A.: Defect of ventricular septum; summary of 12 cases and review of literature. Arch. Int. Med., **84**:798-823, (Nov.) 1949.

Respiratory Distress in the Newborn

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DES MOINES

THE PURPOSE OF THIS paper is to review the incidence of respiratory distress in the neonatal period at Iowa Methodist Hospital, Des Moines, during the year 1955. The newborns will be divided into three groups: (1) the full-term vaginally-delivered babies; (2) the premature infants; and (3) the babies delivered by cesarean section. The clinical explanations given for the respiratory distress will be reported, and modern concepts of the treatment and prevention of these respiratory disorders will be discussed.

For the purpose of this paper, respiratory distress will be regarded as the presence of abnormal respirations on observation, including irregularity, retractions, "grunty" breathing and apnea anytime during the first three days of life. Only respiratory distress that the physician thought significant will be considered.

Of 2,246 live births at Iowa Methodist Hospital in 1955, vaginal delivery at term occurred in 2,073 instances (92 per cent). Some form of respiratory distress was encountered by 61 (3 per cent) of these babies. In 29 of the cases, no explanation of the respiratory distress could be found. The clinical explanations given in the other cases included asphyxia neonatorum, aspiration pneumonia, erythroblastosis, atelectasis, congenital heart disease, hyaline membrane disease, pharyngitis, narcosis, diaphragmatic hernia, anencephaly, amyotonia congenita, post-mature syndrome, non-specific rhinitis and anoxia associated with idiopathic convulsions. The numbers of babies with these diagnoses are shown in Table 1. The use of special procedures of tracheal catheterization or air lock in resuscitation is indicated.

When she wrote this paper, the author was a resident in pediatrics at the Raymond Blank Memorial Hospital, in Des Moines. It was awarded third prize in the 1957 Essay Contest of the Iowa Pediatrics Society.

TABLE 1

RESPIRATORY DISTRESS IN FULL-TERM VAGINALLY-DELIVERED BABIES AT IOWA METHODIST HOSPITAL, DES MOINES, 1955

Diagnosis	*Tracheal Catheter*	*Air Lock*	*Number*
No explanation	18	2	29
Asphyxia Neonatorum	6	1	10
Aspiration pneumonia	2		4
Erythroblastosis			3
Atelectasis			3
Congenital Heart Disease			2
Hyaline Membrane Disease	1		2
Pharyngitis			1
Narcosis			1
Diaphragmatic Hernia			1
Anencephaly			1
Amyotonia Congenita and pneumonia			1
Post-mature syndrome			1
Association with idiopathic convulsions			1

There were five fatalities (0.2 per cent) among the full-term vaginally-delivered babies. The fatalities included the patients with anencephaly and amyotonia congenita; one patient with congenital heart disease; one patient with atelectasis—a Mongolian who had numerous emphysematous blebs at autopsy; and one patient with aspiration pneumonia who had had tracheal catheterization and also was found at autopsy to have had a subarachnoid hemorrhage. One patient for whose respiratory distress no explanation could be found developed a complication of tracheal catheterization. This infant had fairly severe laryngeal edema requiring oxygen and water-vapor therapy for two days. Three full-term babies were put into the air lock. One was diagnosed as having asphyxia neonatorum, and no explanation was found for

the respiratory distress in the other two. All three survived.

PREMATURES MOST OFTEN HAVE BREATHING TROUBLE

Of the 2,246 live births, 106 (4.7 per cent) were premature births. Seven of the premature babies were delivered by cesarean section because of obstetrical emergencies. By definition, a premature baby is one weighing less than 2,500 Gm. or one delivered after a known gestation period of less than 40 weeks. The routine care of the premature infant differs from that which is given to a full-term infant only in that the premature is placed in a heated incubator and is given oxygen and water vapor if there is any sign of respiratory distress. The use of prophylactic antibiotics and vitamin K is left to the discretion of the physician.

Of the premature babies, 47 (44 per cent) had some respiratory distress. Six of the seven prematures delivered by cesarean section had respiratory distress. No explanation for the difficulty could be found in nine of the premature infants. In most of the other such patients, there were several contributing factors. According to the clinical diagnoses, they included immaturity, hyaline membrane disease, atelectasis, asphyxia, subarachnoid hemorrhage, ventricular hemorrhage, anoxia, pulmonary hemorrhage, septicemia, bronchopneumonia, anencephaly, intrauterine anoxia, intrauterine pneumonia and narcosis. These are listed in Table 2, and the use of tracheal catheterization and the air lock are indicated.

TABLE 2

RESPIRATORY DISTRESS IN PREMATURE INFANTS DELIVERED AT IOWA METHODIST HOSPITAL, DES MOINES, 1955

Diagnosis	*Tracheal Catheter*	*Air Lock*	*Tracheal Catheter and Air Lock*	*Cesarean Section*	*No.*
Immaturity (Less than 1000 grams)		8		2	17
Atelectasis		3	1	2	15
Hyaline Membrane Disease	1	1		2	10
No explanation	3				9
Ventricular Hemorrhage	1	3			5
Subarachnoid Hemorrhage		3			4
Anoxia due to:					
Prolapsed cord and breech delivery					1
Cord around neck					1
Failure of respiratory mechanism					1
Asphyxia			1		2
Pulmonary Hemorrhage					2
Septicemia			1		2
Narcosis	1				2
Bronchopneumonia					1
Anencephaly					1
Intrauterine anoxia					1
Intrauterine pneumonia		1			1

Among the 106 premature infants, there were 30 fatalities (28 per cent). This high mortality is heavily weighted by the presence of 17 babies who weighed less than 1,000 Gm. and were physiologically too immature to survive, according to the criteria of Edith Potter.[1] These 17 babies accounted for 16 per cent of the premature infants. The other 12 per cent of the premature babies who died had a variety of findings on autopsy. These included hyaline membrane disease, atelectasis, subarachnoid hemorrhage, ventricular hemorrhage, septicemia, bronchopneumonia and anencephaly. The number of babies with these findings are shown in Table 3. Only one baby had hyaline membrane disease as a single finding. That very small infant, weighing 1,870 Gm., was delivered by cesarean section because of a bleeding placenta previa. Three premature babies weighing more than 1,000 Gm. who had respiratory distress were not autopsied, and therefore, there was no pathologic explanation for their respiratory distress. Four of the seven prematures delivered by cesarean section died. Two of them died of immaturity, one of hyaline membrane disease alone, and one of hyaline membrane disease with considerable atelectasis. Undoubtedly, the obstetrical complications necessitating early delivery contributed to the deaths of these babies.

TABLE 3

PATHOLOGIC FINDINGS ON PREMATURE INFANTS (1000-2500 Gm) DYING IN THE NEONATAL PERIOD AT IOWA METHODIST HOSPITAL, DES MOINES, 1955

Pathological Finding	*Cesarean Section*	*Air Lock*	*Air Lock & Tracheal Catheter*	*Tracheal Catheter*	*No.*
Hyaline Membrane Dis.	1	1			6
Atelectasis	1				4
Subarachnoid Hem.		1			2
Ventricular Hem.		1			2
Septicemia			1		1
Bronchopneumonia					1
Anencephaly					1

Thirteen of the 106 premature babies were put in the air lock. None of them survived, but nine of them weighed less than 1,000 Gm. at birth. The pathologic findings on the others showed septicemia and atelectasis in one, hyaline membrane disease in another, and atelectasis and both subarachnoid and ventricular hemorrhage in another. One baby who was put in the air lock was not autopsied, but was clinically diagnosed as having had asphyxia.

CESAREAN SECTION MAY BE A CONTRIBUTORY FACTOR

Of the total of 2,246 live births, 74 (3.3 per cent) of deliveries were by cesarean section. Seven of these were premature births and have already been discussed. The routine care of babies delivered by cesarean section differs from that which is given

to vaginally-delivered babies in that the infants are put into an oxygen and water vapor atmosphere and are given nothing by mouth during the first 24 hours. The use of antibiotics and vitamin K depends on the discretion of the physician. A total of 21 (28 per cent) of the babies delivered by cesarean section had some respiratory distress. Excluding the prematures, 15 babies (22 per cent) had respiratory distress. No explanation was found for that difficulty in 10 of the patients. Of the other five, three were narcotized, one had hyaline membrane disease and one had atelectasis. Of the 67 babies delivered by section at term, only one died. Thus, the infant mortality for full-term cesarean section deliveries was 1.5 per cent. The baby who died showed atelectasis, pulmonary hemorrhage and pulmonary edema at autopsy.

Only one of the full-term babies delivered by cesarean section developed hyaline membrane disease. It was the baby of a diabetic mother, and the baby survived. Thus, the incidence of hyaline membrane disease in babies delivered by cesarean section, in our series, was 1.5 per cent.

THE SOURCE OF THE TROUBLE SHOULD BE SOUGHT FIRST OF ALL

Of the 36 babies who died in the newborn period, 33 (92 per cent) had respiratory distress, either as a result of the primary disease or in association with the primary disease. Thus, we can see how very important the evaluation of respiratory disease is in the newborn period. As has been observed in most hospitals, the problem of maintaining respiration is far greater than is that of initiating it. Among our 2,246 babies, the only ones in whom there was very much difficulty in starting respirations were those who had conditions incompatible with life. Our experience in this respect accorded with that of Higgins,[2] who reported that in 2,000 consecutive live births no form of resuscitation was used other than laying the non-breathing baby on its side with its head downward 15 degrees from the horizontal. None of those babies failed to start to breathe. Thus, Higgins concluded that no other form of resuscitation is needed for any infant capable of normal survival.

However, mechanical aid to respiration has been used since primitive times, when man applied mouth-to-mouth breathing in an attempt to stimulate the onset of respiration, and devices for mechanical aid have become more and more complex. Probably their most valuable use is in the inadvertently narcotized baby. Several basic steps in resuscitation must be taken before any mechanical device can be used. Most important of all, the airway must be cleared, and the baby must be positioned in such a way that the airway will remain clear. The use of a soft-rubber suction bulb to clear the nasal and pharyngeal passages is universally accepted. Whether or not aspiration of the laryngeal and tracheal passages is worth the risk of complications from instrumentation is a debatable subject. Tracheal catheterization in the hands of a skilled operator is a fairly safe procedure, but some cases of soft-tissue injury from laryngoscopy have been observed. There is no indication for the routine use of tracheal catheterization in any particular type of delivery. The laryngologist Holinger[3] states that if secretions are so copious as to necessitate tracheal catheterization, there is some basic congenital anomaly or birth injury that is causing the excess secretions.

The questions as to how long a baby can survive without breathing and without brain damage has never been definitely decided. Certainly there are many variables involved, such as the duration of anoxia before delivery, the maturity of the baby and the state of the baby's cerebral circulation. Brinkman[4] states that anoxic brain changes will be irreversible after 20 to 40 minutes. The physician would however be taking an unnecessary risk if he waited as long as 20 minutes before making an attempt at initiating respirations. Generally, from five to 10 minutes is considered a safe time to await active respirations.

POSITIVE PRESSURE IS DANGEROUS

The direct application of positive pressure to the respiratory passages for the purpose of starting respiration is the subject of much controversy. Day and his co-workers[6] have clearly shown that there is need for concern as to the height and to the duration of pressure used to expand the lungs. They have demonstrated that the relatively low pressure of 25 cm. of water, such as is commonly used in some commercial resuscitators, is sufficient to rupture expanded alveoli and insufficient to expand unexpanded alveoli in excised lung tissue. However, a much greater pressure—even up to 40 cm. of water—will not rupture expanded alveoli and will expand previously unexpanded alveoli, if applied only for the limited time of 0.15 seconds. Thus, many of the commercial positive-pressure resuscitators are potentially dangerous. Also, a positive-pressure resuscitator is useful only in the initiation of respiration, and cannot be used to assist difficult or irregular respirations. It is also to be remembered that in using mouth-to-mouth positive pressure, one has no control over the height and duration of pressure, and in addition, there is the danger of introducing an infection. Therefore, mouth-to-mouth resuscitation may be even more dangerous than the use of some commercial resuscitators. However, if there is no resuscitator available, the mouth-to-mouth technic is a means of applying positive pressure in those few cases where it is absolutely necessary. None of the 2,246 babies in our series was given any positive pressure directly to the respiratory tract.

NEITHER IRON LUNG NOR AIR LOCK IS HELPFUL

The use of tank type respirators has raised even more discussion. Theoretically, an "iron lung" type of respirator should be ideal. However, there has been a great deal of mechanical difficulty in getting this type of resuscitator to work well. One of the major difficulties is that it is impossible to synchronize the respirator with the respiratory attempts of the baby. The baby frequently "fights" the respirator and goes into a "protest apnea." The same problem occurs in the use of the Bloxsom air lock, which is basically an incubator, with pressures varied rhythmically between one and three pounds per square inch above atmospheric pressure in a cycle of 40 to 45 seconds. The original theory behind the use of these alternating pressures was that babies delivered by cesarean section had difficulty initiating respirations because the respiratory center hadn't been conditioned by the contractions of the maternal uterus in labor.[9] Other advantages have been claimed for the device: removal of fluid from the infant's lungs, better absorption of oxygen through the skin, prevention of pulmonary edema, more efficient aeration of atelectatic lungs and faster maturity of lungs to give a more efficient oxygen-carbon dioxide exchange.[9] There has been ample evidence, however, that babies delivered by cesarean section are able to breathe spontaneously. If the air lock does increase the absorption of oxygen through the skin, only about one-fifteenth of the oxygen requirement could be obtained that way. There are no controlled studies to show that more fluid is removed from the infant's lungs by the air lock than could be removed by proper positioning, that pulmonary edema is prevented or that the lungs mature faster in an air lock. In Bloxsom's early report, the overall mortality rate for both prematures and full-term infants was said to have been reduced 25 per cent through the use of an air lock between 1949 and 1952.[9] That, however, was not a controlled study, and many other advancements were made in the care of the newborn during those years.

The fact that all 13 of our prematures who were put in the air lock died is certainly insufficient evidence on which to condemn the device, since these babies were either immature or had other conditions incompatible with life. However, Reichelderfer and Nitowsky[10] have done a controlled study on the use of the Bloxsom air lock at Johns Hopkins University. In their study, newborn premature infants were placed either in an incubator or in the air lock under comparable conditions, except for the pressure cycling of the air lock. Whether the mother's number was even or odd determined which infants were placed in the air lock, and 72 of them were put into it and 71 into an incubator. It was found that there were no significant differences in the overall mortality rates, mortality rates during the first day of life or relief of symptoms of respiratory distress. Thus, according to Reichelderfer and Nitowsky, there is no more value in putting a premature with respiratory distress into an air lock than into an incubator.

The low incidence of respiratory distress encountered in the full-term infants is characteristic of normal, vaginally-delivered full-term infants. Most cases were mild and responded rapidly following treatment of the condition causing the respiratory distress. The infections responded promptly to appropriate antibiotics, and the surgical conditions such as diaphragmatic hernia responded to surgery and the cases of erythroblastosis responded to exchange transfusions. Four of the five full-term newborns who died had inoperable congenital anomalies or a congenital defect incompatible with life. The fifth baby had an aspiration pneumonia and a subarachnoid hemorrhage. According to Arey and Arey,[11] subarachnoid hemorrhages, when not associated with intraventricular hemorrhage, are due to anoxia and are incidental findings at autopsy. Thus, only one infant death in 2,012 full-term vaginal deliveries can be attributed primarily to a respiratory disorder.

The problem of respiratory distress in premature infants is much more serious. Nothing in the way of pediatric management can be done for the baby who has been born before the lungs have developed enough to provide adequate oxygenation of the blood. According to Potter, this stage of development is reached at 1,000 Gm. of weight. She explains that the babies who weigh less than this amount and survive have developed precociously. All of the babies in our series weighing less than 1,000 Gm. had respiratory distress and died.

HYALINE MEMBRANE DISEASE IS A SPECIAL PROBLEM

Hyaline membrane disease is known to occur much more often in prematures, babies delivered by cesarean section and babies of diabetic mothers. This certainly was true in our series, since the disease developed in one full-term baby, in 10 prematures and in the one baby of a diabetic mother delivered by cesarean section.

The diagnosis of hyaline membrane disease can be confirmed only by autopsy, but it can usually be diagnosed tentatively ante-mortem. About one half of the patients with this entity survive. Clinically, these babies start to breathe spontaneously after birth and have a period of normal breathing lasting from a few minutes to a few hours. Then, they begin to have labored breathing, with subcostal and sternal retractions. They either die or start to improve within 48 hours. If they die after 48 hours, superimposed pneumonia is usually present. On pathologic examination, the lungs are dark red-purple. Histologically, the walls of many alveolar ducts and alveoli are collapsed, and those

that remain open are covered with a homogenous acidophilic material.

The etiology of hyaline membrane disease has long been a subject of controversy, and little has been added recently to clarify it. At the present time, there are three basic theories: (1) inspissation of aspirated amniotic fluid; (2) material derived from the infant's lung; and (3) interaction of aspirated amniotic fluid with elements contributed by the infant. There is a tendency for the proponents of each of the first two theories to agree that there possibly is an interaction of aspirated amniotic fluid with some material from the infant. Gitlin and Craig[15] recently suggested that the steps in the formation of a hyaline membrane consist of: (1) an effusion from the pulmonary circulation; (2) the formation of fibrin from the fibrinogen in this effusion in the presence of thromboplastic material from the aspirated amniotic fluid; and (3) the syneresis of the fibrin to form a membrane. However, the fundamental question of the pathogenesis of the pulmonary effusion remains unsolved.

No one knows why prematures and babies of diabetic mothers are so much more susceptible than are full-term infants to hyaline membrane disease. It is known that the amount of fluid that can be obtained by aspirating the stomach of a baby delivered by cesarean section is much greater than that which can be recovered from a vaginally-delivered baby, and that the amount that can be obtained from the stomach of a baby of a diabetic mother is even greater. On this basis, most physicians aspirate the stomachs of newborn babies delivered by cesarean section. There is no statistical proof that this procedure decreases the incidence of hyaline membrane disease in babies delivered by cesarean section, but the facts that in our series there was only one case of hyaline membrane disease in a full-term baby delivered by cesarean section, and that this infant had been born to a diabetic mother seem to warrant continuance of the procedure.

Since the pathogenesis of hyaline membrane disease is not understood, treatment must be symptomatic. Oxygen, in concentrations of less than 40 per cent, has been pretty well ruled out as an etiologic factor. Therefore, oxygen in an atmosphere of high humidity is commonly used, and it sometimes alleviates the respiratory distress. Even though Silverman and Anderson[16] have shown that there is no value in using supersaturated mist, we find it necessary to add some form of water vapor mist to the incubator to get a high relative humidity. Antibiotic therapy is given because of the frequency of superimposed pneumonia. The baby is not fed during the first 48 to 72 hours of life to conserve his strength for respiratory effort and to minimize the possibility of aspiration.

Stokes[17] reports the successful treatment of a case of hyaline membrane disease with hypothermia induced by chorpromazine and Phenergan. However, in the one case that he reports, the baby's temperature went no lower than 95 degrees, which is characteristic of prematures when no attempt has been made to alter their temperature. Haddam *et al.*[18] reported a controlled study of the treatment of babies of diabetic mothers with cortisone, in a dosage of 50 mg. *statim* intramuscularly, followed by 25 mg. three times a day for three days and gradually decreasing doses for three more days. They found that there was no significant effect on respiratory distress from this regimen. One might speculate as to the possibility of a beneficial effect on hyaline membrane disease from larger doses of a faster-acting steroid.

INCIDENTAL BUT SERIOUS COMPLICATIONS

The presence of atelectasis at autopsy is nonspecific, and it commonly is an incidental finding when there are other conditions that have caused the death of the infant. Therefore, it was not unexpected that four of the prematures in our series, weighing between 1,000 and 2,500 Gm., had atelectasis at autopsy. Since the atelectasis itself does not usually contribute to the death of the baby, treatment is directed at the primary condition that is responsible for the atelectasis.

When found, intraventricular hemorrhage is almost always in a small premature whose birth has been atraumatic and uncomplicated. It is interesting that there is often a latent period before the onset of symptoms from a ventricular hemorrhage. The latent period may be hours or days, and the clinical manifestation is primarily respiratory distress. Many times, the symptoms of respiratory distress begin on the third day of life. Subarachnoid hemorrhage often occurs in association with ventricular hemorrhage, and of itself, it is not significant. Probably nothing can be done to prevent intraventricular and subarachnoid hemorrhage in an immature baby.

Septicemia and bronchopneumonia are more hazardous in a premature than in a full-term infant because of the decreased amount of maternal antibody transferred across the placenta and because of the premature infant's inability to localize infection. Therefore, any infection has to be treated vigorously and promptly with appropriate antibiotics. Generally, the avoidance of prophylactic antibiotics is advisable unless the infant has been exposed to infection at birth. In case he contracts a severe infection later, he will be more likely to respond to antibiotics if he has received none previously.

SUMMARY

The incidence and causes of respiratory distress in the neonatal period of babies born at Iowa Methodist Hospital, Des Moines, during the year

1955 have been presented. The necessity of mechanical aid in stimulating the onset of respirations has been discussed.

An analysis has been made of the causes of death and respiratory distress among full-term babies, premature babies and babies delivered by cesarean section. Recent developments in the prevention and treatment of respiratory disorders leading to death have been reviewed.

REFERENCES

1. Potter, Edith L.: Pathology of the Fetus and the Newborn. Chicago, Yearbook Publishers, Inc., 1952.
2. Higgins, L. G.: Resuscitation of newborn. J. Obst. & Gynaec. Brit. Emp., **58**:190-200, (Apr.) 1951.
3. Holinger, P. H.: Role of laryngologist in resuscitation of newborn infant. J.A.M.A., **159**:1338-1340, (Dec. 3) 1955.
4. Brinkman, R.: General Discussion: In: Anoxia of the Newborn Infant; a Symposium Organized for the Council for International Organizations of Medical Sciences. Ed. by J. J. Delafresnaye and T. E. Oppé. Springfield, Illinois, Charles C Thomas, 1953. pp. 219-220.
5. Cook, C. D., Lucey, J. F., Drorbaugh, J. E., Segal, S., Sutherland, J. M., and Smith, C. A.: Apnea and respiratory distress in newborn infant; physiologic background, resuscitation and supportative technics. New England J. Med., **254**: 562-568, (Mar. 22) 1956.
6. Day, R., Goodfellow, A. M., Apgar, V., and Beck, G. J.: Pressure-time relations in safe correction of atelectasis in animal lungs. Pediatrics, **10**:593-602, (Nov.) 1952.
7. Cook, C. D., Lucey, J. F. Drorbaugh, J. E., Segal, S., Sutherland, J. M., and Smith, C. A.: Apnea and respiratory distress in newborn infant; physiologic background, resuscitation and supportive technics. New England J. Med., **254**: 604-610, (Mar. 29) 1956.
8. Cook, C. D., Lucey, J. F., Drorbaugh, J. E., Segal, S., Sutherland, J. M., and Smith, C. A.: Apnea and respiratory distress in newborn infant; physiologic background, resuscitation and supportive technics. New England J. Med., **254**: 651-657, (Apr. 5) 1956.
9. Bloxsom, A.: Asphyxia neonatorum; new method of resuscitation. J.A.M.A., **146**:1120-1124, (July 21) 1951.
10. Reichelderfer, T. E., and Nitowsky, H. M.: Controlled study of use of Bloxsom air lock. Pediatrics, **18**:918-928, (Dec.) 1956.
11. Arey, H. M., and Arey, J. B.: Respiratory disorders of newborn infants. Ped. Clin. North America, Feb., 1957, pp. 53-68.
12. Stevenson, S. S., and Laufe, L. E.: Experimental production of pulmonary hyaline membrane syndrome. J. Pediat., **47**:40-47, (July) 1955.
13. Duran-Jorda, F., Holzel, A., and Patterson, W. H.: Histochemical study of pulmonary hyaline membrane. Arch. Dis. Childhood, **31**:113-118, (Apr.) 1956.
14. Winter, W. D., Jr., and Gellis, S. S.: Pulmonary hyaline membranes in infants of diabetic mothers. AMA Am. J. Dis. Child., **87**:702-707, (June) 1954.
15. Gitlen, D., and Craig, J. M.: Nature of hyaline membrane in asphyxia of newborn. Pediatrics, **17**:64-71, (Jan.) 1956.
16. Silverman, W. A., and Anderson, D. H.: Controlled clinical trial of effects of water mist on obstructive respiratory signs, death rate and necropsy findings among premature infants. Pediatrics, **17**:1-10, (Jan.) 1956.
17. Stokes, B. M.: Pulmonary hyaline membrane treated by hibernation. Irish J. M. Sc., Series 6, No. 358, pp. 465-467, (Oct.) 1955.
18. Haddad, H. M., Hsia, D.Y-Y, and Gellis, S. S.: Studies on respiratory distress in infants of diabetic mothers. Pediatrics, **17**:204-213, (Feb.) 1956.
19. Miller, H. C., and Smull, N. W.: Further studies on effects of hypoxia on respiration of newborn infants. Pediatrics, **16**:93-103, (July) 1955.
20. Miller, H. C., and Conklin, E. V.: Clinical evaluation of respiratory insufficiency in newborn infants. Pediatrics, **16**:427-437, (Oct.) 1955.
21. Harnaes, K., and Torp, K. H.: Congenital pneumonia and pneumonia in neonatal period; analyses of 84 cases examined at necropsy. Arch. Dis. Childhood, **30**:99-101, (Apr.) 1955.
22. Fraser, J. S.: Study of onset of respiration in newborn. Arch. Dis. Childhood, **30**:546-547, (Dec.) 1955.
23. Respiratory Problems in the Premature Infant—15th M & R Pediatric Conference. Columbus, M & R Laboratories, 1955.

American College of Surgeons Meeting in Des Moines

All members of the medical profession are invited to attend a three-day Sectional Meeting of the American College of Surgeons at the Fort Des Moines Hotel, in Des Moines, March 27 through 29.

Dr. Ralph A. Dorner, of Des Moines, is chairman of the Advisory Committee on Local Arrangements. Assisting him are the following Iowa Fellows of the College: Drs. Walter D. Abbott, Merrill F. Benfer, John P. Cogley, Johann L. Ehrenhaft, Lawrence O. Ely, Rubin H. Flocks, Carroll B. Larson, Carl J. Lohmann, H. Russell Meyers, Leo J. Miltner, Gardner D. Phelps, Joseph B. Priestley, F. Eberle Thornton, Robert T. Tidrick and Thomas Rice Updegraff.

Topics will include emergency care of multiple injuries, surgery for congential lesions, cardiac arrest, cancer, jaundice, ovarian tumors, and fluids and electrolytes. Medical motion pictures will also be shown daily, with an especially fine program of them scheduled for Thursday evening.

The out-of-state speakers will include Dr. E. S. Gurdjian, of Detroit; Dr. William E. Adams, of Chicago; Dr. Clifford D. Benson, of Detroit; Dr. Charles W. McLaughlin, Jr., of Omaha; Dr. Richard L. Varco, of Minneapolis; Dr. Vinton E. Siler, of Cincinnati; Dr. David H. Watkins, of Denver; Dr. James C. Drye, of Louisville; Dr. John W. Huffman, of Chicago; Dr. Harry H. McCarthy, of Omaha; Dr. Rupert B. Turnbull, of Celeveland; Dr. Robert A. L. MacBeth, of Edmonton; Dr. Gerald O. McDonald, of Chicago; Dr. Henry T. Randall, of New York; Dr. Paul V. Harper, of Chicago; Dr. James T. Priestley, of Rochester, Minn.; Dr. Maurice H. Stauffer, of Rochester, Minn.; Dr. Carl A. Moyer, of St. Louis; Dr. Bernard Zimmerman, of Minneapolis; and Dr. William L. Valk, of Kansas City.

Members of the Iowa Counseling Committee for the American College of Surgeons are Dr. F. Harold Entz, Waterloo, chairman; Dr. James E. Reeder, Jr., Sioux City, secretary; and Dr. James W. Agnew, Davenport; Dr. Frank C. Ober, Burlington; and Dr. Vernon W. Petersen, Clinton.

The Iowa Blood Type Disease Research Project

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IOWA CITY

EVER SINCE LANDSTEINER[1] described the ABO blood groups in 1900, there has been conjecture concerning their possible relationship to disease. As disease processes came to be better understood with the advance of medical science during the first half of the twentieth century, increasing evidence accumulated suggesting the part heredity plays in the genesis of an expanding variety of human disorders. Since a person's blood type may be regarded as a genetic label, it had been predicted that an association between blood types and disease should exist.[2] However, no conclusive evidence of such an association appeared until 1953, when Aird and associates[3] in Great Britain showed the incidence of gastric carcinoma to be significantly higher in persons with blood type A than in those with blood types O, B or AB. One year later, these investigators[4] reported findings indicating a higher incidence of duodenal ulcer in persons with blood type O. Since the inheritance of the ABO blood types is well understood, geneticists, immunochemists, serologists, general biologists and clinicians have been excited by the possibility that blood type studies will prove a useful tool in researches concerned with the unsolved questions of etiology, pathogenesis, resistance and susceptibility in those and other diseases. However, the blood groups will be useful as a tool in such researches only if it can be shown that the statistically significant associations indicate causal relationships rather than chance associations. The evidence which has accumulated since 1953 confirming the findings of Aird and associates reduces the possibility of a chance association, but it does not prove causality.

In 1955, a project designed to study the possible relationship of ABO blood types to disease in the Iowa population was started at the University Hospitals. At that time, no conclusive studies had been reported from the United States. Buchanan and Higley,[5] in 1920, after investigating a relatively small number of cases, had concluded that there was no evidence to support an association between the blood groups and the diseases studied. However, an examination of their data shows, in fact, that they contain some support for the later findings. In an inconclusive study published in 1953, Mayo and Fergeson[6] found no evidence of such associations for the ABO or Rh blood groups.

The authors are or have been associated with the Department of Surgery at the S.U.I. College of Medicine, with the exception of Dr. Knowler, who is chairman of the S.U.I. Department of Mathematics and Astronomy.

PHASE 1

Our first objective was to obtain an answer to the following question: Is there an association between peptic ulceration, gastric carcinoma and the ABO blood groups in the Iowa population?

Data were obtained by retrospective review of the case histories of patients with peptic ulceration and gastric carcinoma. The only factors influencing our selection of cases were the presence of blood-type information and an "ironclad" diagnosis. Only patients with histologic diagnoses were included in the gastric carcinoma group. More than 80 per cent of the patients with peptic ulceration included in the study had anatomical diagnoses. The remaining patients had typical clinical histories, positive x-ray findings of peptic ulceration and, sometimes, positive gastroscopic findings. Uniformity in case selection and data-recording were insured by the fact that each chart was reviewed and the data recorded by a member of the research team. The data were recorded on printed cards and later transferred to punch cards. Machine sorting facilitated analysis and correlation of the findings.

The blood type frequencies in the patient groups were compared with those observed in a random sample of the healthy population from which the patients came. Voluntary blood donors—friends or relatives of the patients—were used for this sample.* Professional donors were excluded. Other similar investigations have been conducted in heterogeneous metropolitan populations. The degree of homogeneity of the Iowa population and the fact that our controls came from the same geographic area and had ethnic origins similar to those of our patients assures the relative homogeneity of our data and to enhance the validity of our results. The differences between the blood-type frequencies of the patients and controls were

* These blood donors will henceforth be referred to as controls.

examined for statistical significance by Dr. Knowler. A detailed discussion of the statistical methods employed has appeared in a previous report.[7]

Most of the clinical material came from the University Hospitals. Because of the small differences in blood-type frequencies between the patients and controls, large numbers of cases are required if conclusive results are to be obtained. Therefore, the University Hospitals data were supplemented by those obtained from other Iowa hospitals. Members of the medical staffs, medical record rooms, laboratories and blood banks of the following hospitals made case records available and provided blood-donor data, thus facilitating these investigations: Iowa Methodist Hospital, Des Moines; Mercy Hospital, Iowa City; Veterans Administration Hospital, Des Moines; Veterans Administration Hospital, Iowa City; and Broadlawns-Polk County Hospital, Des Moines.

A pooled random sample of blood donors from University and Iowa Methodist Hospitals had been used as the control for our first studies.[7, 8, 9, 10, 11, 12] For reasons described in detail elsewhere,[13] it was later decided that a more exhaustive study of the blood-donor controls was in order. From that latter study emerged controls more reliable than the original ones, and they will be used in subsequent studies.

In Table 1 are recorded the results of the first phase of this project. These data indicate: (1) a highly significant association between the ABO blood types and duodenal ulcer, characterized by an increased incidence of the latter in persons with blood type O; (2) an almost equally significant and similar association in gastric ulcer; and (3) a significant association in gastric carcinoma, characterized by an increased incidence of the disorder in persons with blood type A. In general, these results confirm those of Aird and associates in Great Britain,[3, 4] Clark and colleagues in Great Britain,[14] and Koster, Sindrup and Steele in Denmark.[15] Since then, additional confirmatory studies have been reported from Norway,[16] Australia,[17] Great Britain[18] and the United States.[19]

PHASE 2

Employing the same methods, we extended our investigations to include other disorders. The same rigorous diagnostic criteria have been applied in the instance of each disorder studied. The findings are recorded in Table 2. Pernicious anemia appears to occur especially often in persons with blood type A. Although the difference in blood-type frequencies between patients and controls were of the same order of magnitude as those observed in peptic ulcer, the statistical significance of these differences was much less because of the small size of the sample. The borderline statistical significance of those data is reinforced by the findings of Creger and Sortor[20] in the United States, and Aird and associates in Great Britain,[21] indicating an increased incidence of this disorder in persons with blood type A.

In order properly to evaluate the findings in breast and lung carcinoma, we must collect more data. Other investigators[4, 22] have not found evidence of an association between these disorders and the ABO blood groups.

The study of patients with rheumatic fever was suggested by the similarity of mucopolysaccharide blood-group substances to certain streptococcal capsular antigens. The working hypothesis was that persons with A-group substance may possibly have a disturbance in their immunologic mechanisms related to a susceptibility to this disorder. Again, the findings are equivocal, suggesting that rheumatic fever does occur more frequently in persons with blood types A and AB than in those with blood types O and B. Additional data are required if we are to reach a firm conclusion.

Blood type A appears to be associated with susceptibility to hip fracture. Such an association had not been suspected. As an additional source of control data, the blood types of patients with hip fractures were recorded. Again, more data must be gathered before we can determine whether or not such an association exists. At this time, no comparable studies of patients with rheumatic fever or hip fractures have been reported.

The cause or causes of psychoses remain ob-

TABLE 1

	Blood Type O		A		B		AB	
	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.
CONTROLS 6,313	45.8		41.6		9.0		3.6	
PATIENTS								
Duodenal Ulcer 1,301	53.7	+7.9	36.3	−5.3	7.8	−1.2	2.2	−1.4
Gastric Ulcer 469	52.9	+7.1	39.0	−2.6	5.5	−3.5	2.6	−1.0
Gastric Carcinoma 908	42.2	−3.6	45.8	+4.2	9.2	+0.2	2.8	−0.8

Blood type frequency percentage of blood donors (controls), duodenal and gastric ulcer, and gastric carcinoma patients; difference in blood type frequency percentage of patients from controls.

scure. A genetic predisposition for certain psychoses has been suggested. Although there is some evidence to support this possibility, it is scanty and unconvincing. Through the cooperation of Dr. W. B. Brown, superintendent of the Mt. Pleasant Mental Health Institute, and Dr. J. O. Cromwell, superintendent of the Independence Mental Health Institute, and their respective staffs, it was practical for members of the research team to type the blood of patients in those two hospitals and to review their case records. The blood-type frequencies of those patients differ significantly from those of the controls. Persons with blood type O appeared to have a higher incidence of psychiatric disorders than did those of blood types A, B or AB. These findings will be reported and discussed in detail in a later communication.[23]

The blood type frequencies of patients with carcinoma of the colon or rectum, leukemia, congenital anomalies (of the cardiorespiratory, central-nervous or genito-urinary systems), ulcerative colitis and prostate carcinoma did not differ significantly from the blood type frequencies of the controls. However, it is worth noting that these patient groups were relatively small, and therefore the possibility of a significant association cannot be categorically rejected.

Perhaps the most reasonable explanation for the apparent association between the blood groups and disease is population stratification. If X population has a predisposition to the development of peptic ulcer as compared with Y population, and at the same time has a higher frequency of blood type O as compared with Y population, evidence for an association between blood type O and peptic ulcer might be found in a heterogeneous X and Y population. This would be a chance association, not a causal relationship. The Iowa findings and those of other investigators have been obtained through studies of Caucasian population groups. Although they have dissimilar cultures and live thousands of miles apart, these populations have a relatively close ethnic relationship. Yet, each study conducted in a different population and confirming the indicated associations reduces the probability that population stratification could explain the findings.

The best answer to this question would be provided by investigations conducted in an ethnically different population. Through the late Dr. Robert E. Elman, arrangements were made for the research team to review the case records of patients with peptic ulcer and gastric carcinoma at the Homer G. Phillips Hospital, in St. Louis. Until 1955, only Negroes were admitted there. In Table 3 are recorded the data obtained by a review of the Homer G. Phillips Hospital records, combined with the few cases of peptic ulcer and gastric carcinoma in Negro patients from the University Hospitals. The controls were obtained from the

TABLE 2

	Blood Type O		A		B		AB	
	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.
CONTROLS 6,313	45.8		41.6		9.0		3.6	
PATIENTS								
Pernicious Anemia 158	37.3	−8.5	48.1	+6.5	8.9	−0.1	5.7	+2.1
Breast Carcinoma 866	42.7	−3.1	44.2	+2.6	9.4	+0.4	3.7	+0.1
Lung Carcinoma 395	51.1	+5.3	36.5	−5.1	8.4	−0.6	4.0	+0.4
Rheumatic Fever 254	39.4	−6.4	44.5	+2.8	10.2	+1.2	5.9	+2.3
Hip Fracture 910	42.0	−3.8	44.8	+3.1	9.9	+0.9	3.3	−0.3
Psychoses 2370	48.3	+2.5	39.2	−2.5	9.7	+0.7	2.8	−0.8
Colon and Rectal Carcinoma 256	46.5	+0.7	40.3	−1.3	9.4	+0.4	3.8	+0.2
Leukemia 456	49.6	+3.8	39.3	−2.3	8.7	−0.3	2.4	−1.2
Congenital Anomalies 327	47.7	+1.9	42.2	+0.6	6.7	−2.3	3.4	−0.2
Ulcerative Colitis 184	43.5	−2.3	44.6	+3.0	8.1	−0.9	3.8	+0.2
Prostate Carcinoma 376	44.4	−1.4	40.7	−0.9	9.8	+0.8	5.1	+1.5

Blood type frequency percentage of blood donors (controls), and patients; difference in blood type frequency percentage of patients from controls.

Homer G. Phillips Hospital blood bank. Observe the striking differences between the Negro and the Caucasian controls. Note, however, the increased frequency of blood type O in Negro patients with peptic ulcer, and the increased frequency of blood type A in those with gastric carcinoma when the patients and Negro controls are compared. Again, because of the smallness of the sample, the differences are of borderline statistical significance. However, when these data are pooled with the Caucasian data—a statistically permissible procedure in the absence of any evidence of heterogeneity—the evidence in favor of the associations becomes highly significant. Although few members of this Negro population are, in a genetic sense, pure strain, the ethnic differences from a Caucasian population are great. Population stratification is a most unlikely explanation for the findings.[24]

PHASE 3

The findings which have been reported were all obtained from retrospective studies. In other words, the data came from the records of patients who were seen prior to the start of the project. Many patients with the various diseases studied had to be excluded because no blood type was available, or because of an equivocal diagnosis. Undoubtedly, a few patients with incorrectly identified blood types or erroneous diagnoses were inadvertently included. Prospective studies, in which data are obtained directly from the patients, provide an opportunity to procure relatively complete and precise information. Such a series of investigations was started in December, 1956.

The findings indicating associations between peptic ulceration, gastric carcinoma, pernicious anemia and the ABO blood groups suggest the possibility that blood substances present in body secretions may play a role in the etiology or pathogenesis of these disorders. Approximately 70 per cent of all persons secrete a water-soluble mucopolysaccharide substance serologically similar to the type specific alcohol-soluble ABO mucopolysaccharide present in their red blood cells. This substance may be detected in saliva, gastric juice, semen and other body fluids by an iso-hemagglutination-inhibition test. When anti-O (H) substance is used for the iso-hemagglutination-inhibition test, the result is not type-specific, since all secretors give a positive reaction. If the inhibition test is positive when one uses anti-O (H) substance, the blood type may be determined through a repetition of the test, with anti-A and anti-B sera. Determination of the presence of ABO type-specific substance in saliva is being done.

The assumption that associations to disease exist for the ABO blood groups and not for the other blood groups is unwarranted at the present time. The few investigations reported concerning the Rh and MN blood groups are inconclusive. Although the genetic and serologic aspects of blood groups other than the ABO are incompletely understood, sufficient is known to make feasible an investigation of their possible relationship to disease. Investigation of the possible relationship of the Rh, MN, S, Kell, Duffy and Lewis blood groups to disease is included in the prospective studies now in progress.

Pertinent to the basic question of whether the reported findings indicate causal or chance associations are the controls used in evaluating the experimental data. Although blood donors have been most widely used as controls because of the availability of data on them in the places where such investigations have been done, their reliability as controls must be questioned.[13] The blood relatives of patients should theoretically be the most reliable controls. Non-causal factors such as population stratification, which might explain the findings, are eliminated, since ethnic differences between patients and controls do not exist. As a part of the prospective investigations, data are being collected from the immediate family (spouse, siblings, parents, children) of the patients included in the study.

The procedure being followed in these prospective investigations will be briefly described. In view of the findings suggesting associations for a variety of apparently unrelated disorders, it would be desirable to include all patients admitted

TABLE 3

	Blood Type							
	O		A		B		AB	
	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.	%	DIF. % FROM CONT.
Caucasian Controls 6,313	45.8		41.6		9.0		3.6	
Negro Controls 6,722	49.1		26.5		20.1		4.3	
Negro Patients								
Peptic Ulcer 173	56.1	+7.0	25.4	-1.1	16.7	-3.4	1.8	-2.5
Gastric Carcinoma 90	44.4	-4.7	34.5	+8.0	18.9	-1.2	2.2	-2.1

Blood type frequency percentage of Caucasian and Negro blood donors (controls), Negro peptic ulcer and gastric carcinoma patients; difference in blood type frequency percentage of Negro patients from Negro controls.

to the University Hospitals in these investigations. However, this is not possible because of the limitations imposed by facilities and personnel. Patients with some of the disorders for which associations appear to exist have been selected for inclusion. They are as follows: gastric carcinoma, duodenal ulcer, gastric ulcer, pernicious anemia, rheumatic fever, diabetes mellitus and hepatic cirrhosis.

In December, 1956, a project serology laboratory was established. A serologic technician and full-time research assistant became a part of the rerearch team which previously had consisted of members of the Department of Surgery, Dr. Knowler of the Department of Mathematics and part-time medical-student research assistants. Blood and saliva specimens are obtained from patients at the time of their admission to the hospital if they have presumptive diagnoses of the above disorders. A blood-type profile (ABO, MN, S, Kell, Duffy, Lewis blood groups) and saliva inhibition tests are made. Each patient is interviewed and examined, and his case record is reviewed by a research assistant (medical student). If the findings establish an unequivocal diagnosis, the research assistant obtains the desired data from the patient and from his case record, and the case is included in the project. If the presumptive diagnosis is in error, the case is rejected. The decision to include or reject a case must frequently be deferred until additional diagnostic studies have been completed or until surgery has been done.

The purpose and methods of the investigations are briefly explained to the patients who are to be included in the project, and their cooperation is solicited. The names and addresses of the patient's immediate relatives are secured. A form explaining the purpose of the investigations is then sent, in a mailing tube, to each blood relative, along with a form containing questions about the relative's medical history having to do with the patient's disease, a blood-specimen tube, a stamped and addressed return label, and a letter to the relative's physician, explaining the project and requesting his cooperation in drawing the blood specimen and obtaining the desired data. If the name of the physician is known, a letter is written directly to him. Blood specimens and data have been obtained directly from those relatives who have visited patients in the University Hospitals. A blood-type profile is done upon all blood specimens obtained from relatives. When the relative has so requested in the space provided on the form, a report of his blood-type profile is sent to him. The not-infrequent questions asked by relatives are answered.

More than 500 patients have been included in this project during the first six months of these prospective studies. The response from the relatives of the patients and their doctors has been gratifying. Specimens and data have been obtained from more than 50 per cent, or more than 1,500 of the relatives contacted. From the rate at which the data are accumulating, it seems that in another two years sufficient data will have been obtained to begin making the results of these studies statistically meaningful.

ACKNOWLEDGEMENTS

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At the University Hospitals, interns, residents and staff members in Surgery, Internal Medicine, Pediatrics and the other clinical departments have made patients available for study, drawn blood and collected data. The blood bank, coding service and hospital record room have participated in the collection and analysis of the data.

Similarly, important assistance has been given by their counterparts in the other participating hospitals.

Hundreds of physicians throughout the state have donated time drawing blood specimens and completing the forms that were sent to relatives and patients.

The invaluable contributions of all these organizations and individuals, which made possible these researches, are gratefully acknowledged by the members of the research team.

REFERENCES

1. Landsteiner, K.: Zur Kenntnis der antifermentativen, lytischen und agglutinierenden Wirkungen des Blutserums und der Lymphe. Zentralbl. Bakt., **27**:357-362, 1900.
2. Ford, E. B.: Polymorphism. Biol. Rev., **20**:73-88, 1945.
3. Aird, I., and Bentall, H. H.: Relationship between cancer of stomach and ABO blood group, with statistical analysis by J. A. Fraser Roberts. Brit. M. J., **1**:799-801, (Apr. 11) 1953.
4. Aird, I., Bentall, H. H., Mehigan, J. A., and Roberts, J. A. F.: Blood groups in relation to peptic ulceration and carcinoma of colon, rectum, breast and bronchus; association between ABO blood groups and peptic ulceration. Brit. M. J., **2**:315-321, (Aug. 7) 1954.
5. Buchanan, J. A., and Higley, E. T.: Relationship of blood-groups to disease. Brit. J. Exper. Path., **2**:247-255, (Dec.) 1921.
6. Mayo, C. W., and Fergeson, J. O.: Are certain diseases associated with specific blood groups or Rh antigens? AMA Arch. Surg., **66**:406-409, (Apr.) 1953.
7. Buckwalter, J. A., Wohlwend, E. B., Colter, D. C., Tidrick, R. T., and Knowler, L. A.: Peptic ulceration and ABO blood groups. J.A.M.A., **162**:1215-1220, (Nov. 24) 1956.
8. Buckwalter, J. A., Wohlwend, E. B., Colter, D. C., and Tidrick, R. T.: Natural selection associated with ABO blood group. Science, **123**:840-841, (May 11) 1956.
9. Buckwalter, J. A., Wohlwend, E. B., Colter, D. C., Tidrick, R. T. and Knowler L. A.: ABO blood groups and disease. J.A.M.A., **162**:1210-1214, (Nov. 24) 1956.
10. Buckwalter, J. A., Turner, J. H., Raterman, L., and Tidrick, R. T.: On etiological role of heredity in fractures. Surgical Forum, **7**:610-614, 1957.
11. Buckwalter, J. A., Wohlwend, E. B., Colter, D. C., Tidrick, R. T., and Knowler, L. A.: Association of ABO blood groups to gastric carcinoma. Surg. Gynec. & Obst., **104**:176-179, (Feb.) 1957.
12. Buckwalter, J. A.: Disease associations of ABO blood group. Acta Genetica et Statistica Medica, **6**:561-563, 1956-1957.
13. Buckwalter, J. A., and Knowler, L. A.: Blood donor controls for blood group disease researches. Am. J. Human Genetics. In Press.
14. Clarke, C. A., Cowan, W. K., Edwards, J. W., Howel-Evans, A. W., McConnell, R. B., and Woodrow, J. C.: Relationship of ABO blood groups to duodenal and gastric ulceration. Brit. M. J., **2**:643-646, (Sept. 10) 1955.
15. Koster, K. H., Sindrup, E., and Seele, V.: ABO blood groups and gastric acidity. Lancet, **2**:52-55, (July 9) 1955.
16. Heisto, H.: Relation of blood group to peptic ulcer. Tskr. N. Laegeforen, **76**:10-13, (Jan. 1) 1956.
17. Billington, B. P.: ABO blood groups and gastroduodenal diseases. Australas. Ann. M., **5**:141-148, (May) 1956.

18. Brown, D. A. P., Melrose, A. G., and Wallace, J.: Blood groups in peptic ulceration. Brit. M. J., 2:135-138, (July 21) 1956.
19. Hogg, L., and Pack, G. T.: Controversial relationship between blood group A and gastric cancer. Gastroenterology, 32:797-806, (May) 1957.
20. Creger, W. P., and Sortor, A. T.: Incidence of blood group A in pernicious anemia. AMA Arch. Int. Med., 98:136-141, (Aug.) 1956.
21. Aird, I., *et al.*: Collective series from number of centres; association between blood group A and pernicious anemia. Brit. M. J., 2:723-724, (Sept. 29) 1956.
22. McConnell, R. B., Clarke, C. A., and Downton, F.: Blood groups in carcinoma of lung. Brit. M. J., 2:323-325, (Aug. 7) 1954.
23. Buckwalter, J. A.: In preparation.
24. Buckwalter, J. A., Turner, J. H., Raterman, L., Tidrick, R. T., and Knowler, L. A.: Ethnological aspects of the ABO blood groups disease associations. J.A.M.A., 165:327-329, (Sept. 28) 1957.

Surgery of the Hand

A Discussion of Certain Procedures, With Case Reports

L. B. WILLIAMS, M.D.
MAQUOKETA

IT IS WORTHWHILE for all of us who treat hand injuries to review the principles of surgery which are applicable to that specialized "organ," and to review the unique reaction to injury of which it is capable. And since any physician who sutures a laceration of the hand is of that number, I have reason to think that this discussion will be of interest to many readers.

Surgery of a disordered hand is serious business. Not only is the hand a functional and wage-earning organ, the hand is second only to the face in portraying one's personality; one uses it in greeting his friends; and it helps him in enforcing the innuendos of his speech. It reaches out with unerring skill to pluck a tuft of wool from its owner's lapel, and with equal sensitivity, it warns him of obstructions in the darkened passageway to the bathroom.

Unfortunately, all hand surgery is not glorious achievement, and before applying his "healing blade" to an afflicted hand, the operator should plan his procedure carefully. As is generally true in surgery, the course toward a healed and maximally functional hand is hardly ever smooth, and some tragic pitfalls await the well-meaning physician.

What I shall say will contain echoes of statements that have been made by experts whose skill has brought function to hands that otherwise would have withered forever, or might have been buried by themselves, but I shall discuss certain cases of hand surgery from my own practice.

NATURE NEEDS ASSISTANCE

The guillotine amputation of the distal segment of a digit is common. The stump always heals, and in spite of the rather jagged and macerated appearance that it may have presented originally, the cosmetic result is surprisingly good. Nevertheless, I am convinced that a clean amputation through the "body" of the distal or middle phalanx should receive a full-thickness pedicle graft. A stump which heals spontaneously always remains tender, and because the skin that covers it is thin, it is particularly sensitive to temperature changes. In addition, the sharp edges of the bony phalanx often cause pressure pain from within whenever the finger is flexed. If the patient must earn his living with his hands—and who, in the final analysis, doesn't?—he needs a finger with a soft, padded tip. The immediate treatment has to be a relatively elaborate one, but the physician is myopic if he permits this to deter him from securing the most satisfactory end result. He should scarcely need to be reminded that the injured finger, or what is



Figure 1. Pedicle-flap graft from abdomen applied to "guillotine" amputation of finger tip, three months postoperative. Suture line has been emphasized with dye.

left of it, must serve—rather than impede—the patient for the remainder of his life. Perhaps, indeed, the maimed digit will nervously pick at the coverlet, in true Hippocratic fashion, to herald the final hour!

The awkward position of the arm and hand required for the pedicle graft and the necessity of a second (surgical) wound often make doctor and patient settle for, "Let it alone; it'll heal." Admittedly, the final result of a pedicle graft is often cosmetically worse than that which is produced by a spontaneous closure, and for that reason I think it is good judgment to employ spontaneous closure in women. Functionally, however, it can't be denied that the pedicle graft is superior.

SURGICAL PROCEDURE

There are several technics. (1) Suturing the stump to the thenar eminence is awkward, it is uncomfortable and it requires that one make a surgical wound in an already injured hand. It is also frustrating when the patient cannot extend the finger from the extreme flexion after the second-stage release. (2) An abdominal-skin pedicle is most comfortable, it is least painful, and it gives a soft, well-padded fingertip (Figure 1). (3) The pedicle flap, I have no doubt, is far superior to split or full-thickness free grafts which result in stumps that are hardly better than those produced by spontaneous healing. The pedicle graft is, technically, far simpler—indeed, almost foolproof—and it always "takes," for its blood supply is carried along with it. As one removes the first dressing from a split-thickness graft, with aloofness, austerity and proper professional calm, it can be embarrassing if he reveals that the graft has "taken" beautifully—to the dressing!

Most hand experts of repute have wisely and conservatively advised against all primary pedicle grafts—i.e., application of the first-stage flap at the time of injury. Their advice is certainly sound in principle. Massive injuries tend to be horribly contused, jagged and macerated, as well as thoroughly filthy. However, an occasional wound or amputation is almost "clean," though by no means necessarily sterile. Such is the case in accidents with massive punch presses, as in the case shown in Figures 2A and 2B. In that instance, there had been a circular amputation of metacarpals two, three and four, with parallel amputation of the skin two inches proximal to the bone edge. (Undoubtedly there was a momentary traction of the skin into the press before the soft-tissue amputation occurred.) It was necessary to debride no more than the ⅛ in. of compressed skin margin. Then a primary abdominal pedicle was applied, and the second-stage release was accomplished two weeks later. An excellent functional, painless



Figure 2A. Postoperative abdominal pedicle flap applied to amputation of distal hand. The primary graft was applied at the time of injury.



Figure 2B. Demonstration of grasping function. The mobility and strength of digit V have compensated in satisfactory fashion.



Figure 3A. "Amputation" of thumb for Grade II carcinoma, with preservation of the distal phalanx.



Figure 3B. Firm apposition of index finger and thumb is demonstrated.

stump resulted. When the dressings were discontinued, the patient resumed his avocation of beekeeping, and although the graft sustained 15 to 20 bee stings per day, there fortunately was no mishap or evidence of devascularization of the flap.

I have frequently employed the primary pedicle, being careful, always, to avoid "stretching" any contraindications. I have not been merely "getting by," for to take chances with a patient's hand would be shoddy. The primary pedicle procedure obviously saves time, however, for it circumvents the three or four weeks of "cleaning up" or granulation. The initial wound is about as clean as it ever will be.

Plastic Flaps may be used in certain limited areas of the hand for the repair of smaller defects. I wish to emphasize that "V" and "Y" flaps are preferable to the "Z plasty," which is one of the few hideous surgical procedures ever devised. It is for young surgeons who love to cut into living human tissue and to tie sutures.

A "transplantation" of the distal thumb is demonstrated in Figures 3A and 3B. The patient had a Grade II carcinoma on the volar aspect of the thumb, measuring 1.5 x 2 cm. It centered over the proximal phalanx and penetrated to the flexor tendon sheath. I was surprised to find that skin carcinoma of the hand is not so static as are its relatives elsewhere. I have been told that the mobility of the hand, plus the richness of its blood and lymph supplies, promotes early lymphatic spread. It is thus obligatory that rapid treatment be instituted. In lesions of the digits, x-ray therapy will render the tendons atrophic and fibrotic, and will make the digit useless. This particular lesion was totally excised, except for a ventral flap to the distal phalanx (as is shown in Figures 3C and 3D). The distal phalanx was impacted upon the

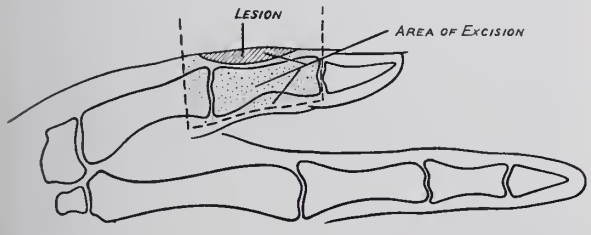


Figure 3C. Grade II carcinoma of thumb. "Amputation" performed, with preservation of the distal phalanx.

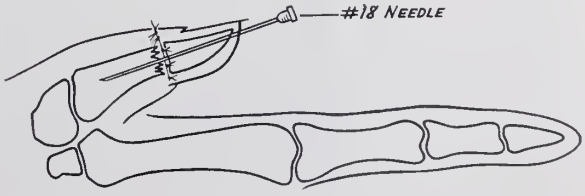


Figure 3D. Immediate postoperative anatomy of surgical lesion depicted in 3A. Distal phalanx and ventral digital arteries were preserved. The phalanx is intended to be firmly ankylosed to the thumb metacarpal.

amputated metacarpal, and ankylosis occurred as had been intended. The all-important tactile sense of the distal pulp was preserved, complete healing occurred, and solid apposition is present between index finger and thumb. The patient has been able to resume his vigorous farming activities, with no impairment of efficiency and without pain. I had contemplated doing a web-deepening procedure at a later date, but I have now decided that it will be unnecessary.

I have already mentioned cosmetic considerations, and have said that they are of particular importance to the lady who has injured or deformed fingers. I am sure that it is the best policy to suture any attached tissue to the stump that might possibly "take." At a future date, however, it is difficult for both physician and patient to be objective about removing a fingertip that has "taken," but has made the stump painful and useless as a finger. The end result shown in Figure 4A is painless, but it is cosmetically poor for a young female patient. Some astonishing rubber prostheses are available. The rubber is accurately colormatched to the skin, and the skin markings are reproduced in the most minute detail, even to the matching of fingerprints! (Figure 4B). Though these prostheses are not functional for everyday use, they can be slipped on for social events. Compensation laws, incidentally, do not require employers to pay for cosmetic prostheses, and elaborate replacements just for the sake of appearances are often beyond the patients' means.

The cases that I have spoken about and have pictured so far are ones in which I can take a certain amount of satisfaction, but contrary to many reports that I have read, I think it is obligatory for each of us to remind himself periodically that all things which surgeons touch don't turn out precisely as they should have wished. Superficially, it is pleasant to think that the initial state of injuries to tendon, nerve, etc. were so massive as to have made the hand irreparable, but why shouldn't we blame ourselves completely and, by critical introspection, avoid stumbling over the same stone twice. Some of my cases I haven't photographed and I hope other physicians never have occasion to see, but there are a few of which I have taken pictures, and by way of donning a hair shirt in penance for my sins, I reproduce one of them here (Figure 5).

This patient had accidentally impacted his hand against an abrasive wheel 2½ inches in width, and before he could withdraw it, the wheel had honed through skin, subcutaneous tissue, the extensor tendon mechanism to fingers 3, 4 and 5, and entirely through metacarpal V, leaving a thin sliver



Figure 4A. (Same case as in Figure 1) Artificial prosthesis placed on stump for demonstration only. Cosmetic improvement is obvious.



Figure 4B. Fingertip prosthesis. Skin color matching and anatomic detail assist immensely in some patients' social adjustment.

of metacarpals IV and III. Because the wound was dirty and greasy, I debrided it and instituted open treatment in the position of function until clean granulation tissue presented itself. A sliding flap was mobilized from the forearm for skin closure. The tendons were fairly easily approximated, but only by marked dorsiflexion, and the damaged framework of the metacarpals was disregarded.

The suture of the extensor tendon mechanism united quite well, but the patient cannot *flex* the injured digits, despite the fact that the *flexor* tendons were untouched by the initial injury. The massive injury, excessive hyperextension and an unusually marked causalgia produced a "hand cement" that left three stiff fingers protruding from the metacarpal tips.



Figure 5. This hand functions poorly as a result of a massive grinder avulsion of skin, tendon, fascia and bone on the dorsum.

UNIQUE PITFALLS

The term "hand cement" leads us to a discussion of the unique pitfalls in the treatment of injuries to the hand. A fractured ankle, femur, vertebra or humerus can be immobilized practically indefinitely without any very serious trouble. Not so the hand. Every day—indeed it is scarcely exaggeration to say every hour—of hand restraint is dangerous. Serous effusion, fibrin deposition, fibroblastic invasion, and contracture of *all* tendons and their corresponding muscles leave the patient with an irreversibly ankylosed finger or hand. In a young person, I have known it to happen in just seven days. A hand had been buried abdominally to obtain a flap for a single-finger injury, and a *pan*-ankylosis of the hand resulted.

Proximal impairment of normal mechanics is a danger that one can easily neglect. The hand is an "end organ" of the arm by which it is transported and placed in position for function. In addition, the arm contains the muscles that activate the major movements of the hand. Any traumatic insult to the hand is reflected upward to the wrist, the forearm, the elbow, the upper arm, the shoulder and the shoulder girdle, and it may even affect the spinal attachments and, through reflex, cross-over phenomena, impair the function of the opposite arm. If we must stabilize the hand, certainly we need not immobilize the entire limb. Rapid ankylosis of the wrist, the elbow and, particularly, the shoulder can occur. A sling is only for the exhibitionist or, contrariwise, for the individual who wishes to hide something beneath it!

The shoulder is especially susceptible to secondary complications from the hand, such as bursitis and perisynovitis (an entity proposed by experts whose hobby is medical etymology). Or perhaps I should refer to this relationship as either the "shoulder-hand" or "hand-shoulder" syndrome (depending, I suppose, upon the order in which one examines the patient). But I must stop this facetiousness. I mean simply to point out that injury to the hand, together with measures used in its repair, may produce atrophy of *all* muscles of the upper extremity and, irritatingly enough, may cause pain and difficulty long after the hand lesion has healed satisfactorily. A patient who has been immobilized in any way should be started on "stationary" exercise within hours after moderate comfort has replaced pain.

Intangible factors influence the results of hand injuries, and they are not to be confused with such relatively specific characteristics as age, general health, etc. These intangibles comprise the psychic makeup of the patient. Perhaps, without being banal, I can suggest that the physician should pay some attention to the person who is attached to the hand that has preempted his attention ever since its injury. All of us have been guilty, though inadvertently, of treating *a hand*, rather than *a patient* whose hand has been injured.

Of all the factors capable of advancing or retarding recovery from a hand injury, I believe that the attitude of the patient is the most important. It supercedes such considerations as the virulence of the contaminating organism or the capability of the surgeon. Two patients of mine sustained identical injuries within 24 hours of one another. In each, the injury involved a grinding, avulsing penetration of the hand through a leather glove, just proximal to the interdigital web. In each injured hand, the flexor tendons of two fingers were in-

volved, and grease was deeply imbedded. One patient returned to work full time within three weeks; the other began working full time only after 1½ years, and has a "claw" hand involving *all* digits. The latter patient exhibits a hyperventilation syndrome and an anxiety reaction whenever his duties bring him anywhere near the offending machine. For six months, he carried his arm and hand in the "fetal" position, close against his chest and with his fingers flexed. The hand was "withdrawn from society," and no doubt the massive machine that injured him will occupy his anxiety mechanism for the remainder of his life.

There are a few individuals, distinct from the rest of us, who either overtly or subconsciously seek a "secondary gain" from such an injury, and the only treatment that we can administer for that aspect of their difficulties is the wonderful green ointment. These people should always be referred to a specialist in the Big City who has a Broad Background of Training at a Well Known Center and has papered one of his walls with Certificates.

COMMENTS

Several observations, though made somewhat at random, will gather together what I have left to say about hand surgery. There are few iron-clad rules in Medicine, but there is one that is worth remembering: Tendon lacerations distal to the distal flexion crease of the hand must *never* be sutured. Healing should be allowed to occur, and a secondary tendon transplant should be made if it is deemed necessary. The flexor tendons of the finger, sliding in their synovial sheaths, are well lubricated and have what machinists would call a "minimum tolerance" within their enclosure. When injury or surgery has invaded the tunnel, edema occurs, and within a few hours the tendon is impacted firmly within its sheath—a hopeless situation for primary repair.

A pronounced change is occurring in Iowa—viz., the evolution from a strictly agricultural economy to one in which farming and industry are next door to one another. A breadwinner may quite possibly work in his fields in the summer and make jet engines in the winter. Both occupations are high in the list of dangerous pursuits, and I firmly believe that the Iowa farmer, though well above the average in intelligence and know-how, is a ripe candidate for industrial injuries. In his new job, his environment is noisy and sunless. If he is unlucky, he works beside a garrulous woman who consistently produces many more piece-work units per hour than he can. Quite understandably he grows resentful and attempts to "push" his production, with disastrous results. But worst of all, there is a foreman—a youngster, perhaps, or someone whom the transplanted farmer finds another reason for regarding as a "pip-squeak." The foreman watches the hapless farmer's every activity. He is *a boss*—something that the farmer never has had during all of the time since he became an adult. Such a farmer-industrial worker is unquestionably accident-prone!

Hand surgery is a fascinating endeavor, but since it is infinitely painstaking, fatigue, and even a growing sense of futility will begin following the first 45 to 60 minutes of operating time. In making such a statement, I paraphrase the words of the great men in hand surgery—Knavel, for example, and Bunnell, with his thoroughness, patience and massive experience.

It is a surgical thrill to diagnose a severing of the flexor pollicus longus tendon that has occurred over the thenar eminence. An exploratory incision at the wrist uncovers the proximally retracted end; the severed tendon is approximated by means of a steel "pull-out" suture; and after healing, a raucous adolescent again has a functioning thumb! The surgery that is required is neither theatrical nor intricate, but there is satisfaction, nevertheless, in mimicking the diagrams and teachings of the experts, and in doing a workmanlike job.

Lest any of us become over-enthusiastic, it is well for us to remember that progressively elaborate surgical procedures are attended by greater and greater risks. Ensconced in arm chairs and equipped with pencils and pads, we can bring a great many esoteric operations to successful and uniformly uncomplicated conclusions. But with scalpels in our hands and living tissue in front of us, we should be less ambitious. Multiple stages (from three to 12) are alone capable of condemning a hand—and a personality—to stiffness, pain and passive function.

SUMMARY

1. Several aspects of hand surgery have been discussed, and illustrative cases have been presented.

2. The unique structure of the hand and its tissues has been discussed in relation to surgical complications and pitfalls.

REFERENCE

1. Bunnell, Sterling B.: Surgery of the Hand, Third Edition. Philadelphia, J. B. Lippincott & Co., 1956.

QUESTIONS AND ANSWERS ON LEGAL PROBLEMS

"Seventeen Questions and Answers" is a booklet prepared by the Law Department of the AMA to supplement the film "The Medical Witness." The nine-page pamphlet should be of special interest to the program chairmen of county medical societies that plan to view the motion picture. It can be secured free from the Wm. S. Merrell Company, Cincinnati 5.

State University of Iowa College of Medicine

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 23-YEAR-OLD WHITE housewife was brought to the University Hospitals as an emergency transfer from a local hospital. Her chief complaints at admission were abdominal pain and vomiting.

The medical history revealed that the patient had enjoyed good health. There was a four-year history of infertility. The patient's menses had occurred at regular intervals until three months prior to admission. She then had missed two periods, but an apparently normal menstrual period had occurred one week prior to the onset of her acute illness. There had been no intermenstrual bleeding.

The family physician's records showed that three weeks before her admission the patient experienced the sudden onset of continuous abdominal pain, accompanied by intermittent vomiting. She was admitted to the local hospital four days after the onset of her illness. At that time, her body temperature was 104° F., and the abdomen was "board-like." A pelvic examination revealed a boggy, tender mass to the right of a normal-sized uterus. The patient was treated with intravenous fluids, continuous gastric suction, antibiotic therapy and a 500 cc. blood transfusion. A surgical consultation was obtained, and it was decided that an exploratory surgical procedure should be postponed because of the patient's physical condition. During the following days of her hospitalization, her abdomen became less rigid.

On her arrival at this hospital, the patient appeared cachetic. Her body temperature was 101° F., orally, and her blood pressure was 110/60 mm. Hg. The lungs and heart were reported to be normal by auscultation. Examination of the abdomen revealed moderately severe, generalized abdominal muscle guarding. Diffuse rebound tenderness was demonstrated. The liver edge was palpable 6 cm. below the right costal margin. Normal bowel sounds were present. A pelvic examination revealed a soft, tender mass filling the pelvis. It was more prominent on the right, and it extended 3 cm. above the symphysis. The cervix was normal, and the uterus was pushed forward by the mass.

The hemoglobin was 9 Gm./100 ml., and the white blood cell count was 13,400 per cu. mm. The urinalysis revealed 10 to 15 red blood cells per high power field. E. coli were identified in a culture taken from the cervix. The fluoroscopic examination of the chest revealed an elevated right hemidiaphragm, and a prominent pulmonary artery segment. Bilaterally, there were normal diaphragmatic excursions. Supine and upright films of the abdomen showed no air within the abdominal cavity, but there was a large amount of fecal material and a moderate amount of air in the colon.

Because the patient retained oral feedings, a general diet was given. Her fever reached a daily high of 102° F. in spite of penicillin and tetracycline therapy.

On the third day a colpotomy was performed, and 750 ml. of purulent material was removed. A rubber drain was placed in the abscess cavity. The hemoglobin was 8.2 Gm./100 ml., and a white blood cell count was 17,300 per cu. mm. The differential count was 1 band cell, 79 polymorphonuclear cells, 15 lymphocytes, 3 monocytes and 2 metamyelocytes. The patient received a 1,000 ml. blood transfusion.

Following the colpotomy, the fever reached 101.4° F. on the first postoperative day, 100.6° F. on the second day, and 102.2° F. on the third day. One bowel movement occurred on the first postoperative day, and two on the second day.

The patient appeared improved until the third postoperative day, when severe right paraumbilical pain, nausea and abdominal distention appeared. All feedings were discontinued, and gastric suction and intravenous fluids were begun. She received a 500 ml. blood transfusion, 1,600 ml. of 5 per cent glucose and water, and 2,400 ml. of normal saline. The urinary output was 300 ml. (pH 5.5), and gastric suction removed 500 ml. of fluid.

On the fourth postoperative day, the abdominal pain had lessened, but the abdomen was distended, and minimal bowel sounds were present. The fever reached a high of 101.8° F. Intravenous administrations included 3,200 ml. of 5 per cent glucose and water, 1,200 ml. normal saline and 500 ml. of 5 per cent sodium lactate. The urinary output was 800 ml., and 1,000 ml. of fluid was removed by gastric suction.

On the fifth postoperative day, the fever did not rise above 100.4° F. The patient appeared unchanged, the abdomen was distended and there were no bowel sounds. Intravenous administrations included 1,600 ml. of 5 per cent glucose, 1,600 ml. of normal saline, 500 ml. of 1/6 M. sodium lactate and 6 Gm. of potassium chloride. Again, 800 ml. of urine was excreted, and 1,000 ml. of fluid was removed by gastric suction. Urinalysis showed a specific gravity of 1.016, a pH of 6.0, an albumin of 1+, and no acetone or bile. Microscopically, there was an occasional red blood cell. A Fantus test showed 2.0 mg./L.

On the third postoperative day, serum values

were: sodium, 127 mEq./L; blood urea nitrogen, 7 mg./100 ml.; and creatinine 0.9 mg./100 ml. On the fifth postoperative day, the serum values were: sodium, 120 mEq./L; chloride 98 mEq./L; and CO_2 content 12 mEq./L.

On the sixth postoperative day, the blood pressure dropped precipitously to 70/50 mm. Hg. Although the patient remained alert, the extremities became cold and mottled. Nasal oxygen was started. To correct the acute hypotensive state, 500 ml. of blood and norepinephrine therapy were given. In spite of this treatment, the blood pressure became too low for accurate recording. One unit of plasma, 250 ml. of blood and 10 mg. of hydrocortisone given intravenously had no effect upon the blood pressure. The pulse was "thready but regular" and the rate was 130 per minute. An apical gallop rhythm was present. Approximately three hours after the sudden onset of her hypotensive state, the patient developed moist rales in both lung fields, and frothy sputum was present in the pharynx. She expired shortly thereafter.

CLINICAL DISCUSSION

Dr. William B. Goddard, Obstetrics and Gynecology: This patient was admitted with one of the most complete clinical summaries from a home physician that I have ever seen. She had received excellent care in her community hospital.

First, this patient had infertility. Her menses had been normal. Then she missed two periods, and afterwards had a normal one just before she developed her acute illness. The abdominal pain was sudden in onset and was continuous. Her temperature went quickly to 104°, and then she developed a board-like abdomen.

After consultation, transfusion, antibiotic therapy and gastric suction, she was transferred here. Considering her appearance on arrival, I think it was wise that the surgical procedure was delayed. She was in no condition for an operation. She was cachetic and febrile. There was generalized muscle guarding, diffuse rebound tenderness without localization, and a palpable liver edge extending 6 cm. below the costal margin. Pelvic examination revealed a boggy, tender mass, more prominent on the right and extending above the symphysis. We felt that it was separate and did not think that we were dealing with a normal pregnant uterus.

We thought of the trio of gynecologic diagnoses: pelvic inflammatory disease, infected ectopic pregnancy and criminal abortion. It would seem that we could rule out the last of those in an infertile girl hoping for children.

The patient's menstrual history would make one seriously consider ectopic pregnancy. Pelvic inflammatory disease is a possibility, but we didn't think it was a strong one.

One should think of ruptured appendix, diverticulitis or almost any ruptured viscus. A ruptured viscus might give us this picture after the patient's natural defenses and treatment had walled it off. We felt that the palpable liver might be an indication of a subphrenic abscess, but it seemed to be ruled out by x-ray and fluoroscopic examination of the diaphragm. After some observation, we felt that the patient had a pelvic abscess of unknown cause and that she would soon be ready for drainage. Drainage was performed with ease, and 750 ml. of purulent material was removed. There were no loculations in the cavity, and a drain was put into the abscess cavity.

After drainage, she seemed to improve clinically, and the fever started down. Then suddenly on the morning of the third postoperative day, she developed acute distention, ileus and severe abdominal pain, particularly on the right. Oral feedings were discontinued. Gastric suction and intravenous fluids were begun. As I look over the summary of her fluid therapy, it seems to be that the 3,200 ml. of 5 per cent glucose and water on the fourth postoperative day was entirely too much. She had received several transfusions.

On the sixth postoperative day, the blood pressure dropped precipitously to 70/50 mm. Hg. The patient remained alert, but her extremities became cold and mottled, and nasal oxygen, transfusion and norepinephrine by intravenous drip were begun. She remained alert, but no blood pressure was obtainable. She was seen in consultation by members of the general surgery staff. It was felt that we were dealing with a patient with an overwhelming peritonitis who was rapidly losing extracellular fluid into the peritoneal cavity. It was felt that we must keep up her blood volume, and that norepinephrine and hydrocortisone should be used as adjuncts. This was done with full realization that she might develop pulmonary edema.

She was given one unit of plasma expander, and was on her second unit of blood when a gallop rhythm developed about three hours after the onset of her hypotensive state. She developed moist rales in both lungs, some frothy sputum appeared and she died in acute pulmonary edema. Her blood pressure was obtainable at no time during this episode.

Dr. Carl Gillies, Radiology: The x-rays taken at the time of the patient's admission are not very revealing. The chest was entirely normal. The diaphragm did not appear high. When it was fluoroscoped, both leaves moved well. In the presence of infection beneath the diaphragm, there is usually some limitation of motion of one leaf, a sign which, when present, leads one to suspect the presence of a subphrenic abscess.

Of the films of the abdomen, one was taken upright and one was taken in the decubitus position. There was considerable gas present, apparently in the colon, but there was no evidence of fluid levels except in the stomach. There was a considerable amount of fecal material in the colon, but the findings were those of an ileus, rather than of an intestinal obstruction. There was no

small-bowel distention, and no small-bowel fluid level.

The x-ray findings of both the chest and the abdomen were non-contributory.

Dr. Goddard: From the films, Dr. Gillies, did you feel that there was any evidence of obstruction anywhere in the colon?

Dr. Gillies: No, I saw no evidence.

Dr. Goddard: Do you think that subphrenic abscess can be ruled out by fluoroscopy?

Dr. Gillies: I don't think one can make a definite decision on that basis, but an immobile diaphragmatic leaf would be a contributory sign.

Dr. Emory D. Warner, Pathology: This patient had two major diseases. One was the infection which has already been referred to. The second one was primary malignancy of the bowel. There was a carcinoma of the splenic flexure of the colon which grossly appeared to obstruct the colon completely at the time of autopsy. Yet, the patient did have bowel movements on two occasions in the hospital, I understand. From this lesion there were rather extensive metastases involving the peritoneum, regional nodes, mediastinal nodes and lungs. The liver had largely been replaced by metastatic cancer. It weighed 3,500 Gm. There was generalized peritonitis without any localized abscess. Perhaps it was slightly more severe in the pelvis than elsewhere.

There was no free fluid in the abdominal cavity at the time of autopsy. I don't know how much drained from the colpotomy. The catheter was still in place, and there was no localized abscess in the cul-de-sac. The stomach and upper small bowel were collapsed. Aside from the first foot or two, the small bowel was tremendously distended. The colon to the splenic flexure was likewise distended. There was a mixture of gas and fluid fecal debris in the distended bowel.

That, in essence, was the situation at autopsy: obstruction of the bowel, with distention, peritonitis and paralytic ileus. From the obstruction at the splenic flexure proximal to the ileal cecal valve, the colon was involved by a membranous necrotizing colitis. Practically the entire colonic mucosa had been replaced by a dirty-green, friable exudate which in places could be peeled off, leaving bits of mucosa. For the most part, it formed a diphtheritic membrane, with the necrotic mucosa admixed with exudate, and could not be stripped off.

A mixture of organisms were cultivated from the colon. Both Staphylococci and Streptococci were obtained, along with E. coli, Pseudomonas and Candida. Microscopically, gram-positive cocci could be seen in the bowel wall in bacterial stains, but we could not see any of the yeast organisms in the tissue, and whether or not the fungi had anything to do with the enteritis is difficult to say. At least the organisms were not present in the tissue. It was a mixed infection of the type seen in so-called postoperative enteritis.

There was extensive cellulitis and induration, particularly in the pelvis, involving the peritoneum and, to some extent, the retroperitoneal tissue. This cellulitis was of sufficient duration to have produced considerable fibroplasia. This had partially obstructed the ureters, with bilateral hydroureter, especially on the right. It was of fairly recent origin and could have accounted for some of the inadequacy of urinary output.

A slide of the carcinoma of the bowel showed the massive tumor at the splenic flexure, a fairly well differentiated adenocarcinoma. It appeared to obstruct the bowel completely, and the colon was collapsed below the lesion. The bowel mucosa was essentially normal below the lesion, but proximally the mucosa had largely been replaced by dirty-green exudate, with here and there an area where it had sloughed.

The liver, which weighed 3,500 Gm., contained myriads of metastatic nodules, many of which were centrally necrotic. Many had been converted into virtual abscesses by the superimposed infection in the necrotic tumor tissue. There were multiple metastatic nodules in the lung, bilaterally.

Another slide showed the histology of the carcinoma. Normal colon mucosa, with the normal glands, was shown abruptly to give way to carcinomatous tissue. The neoplastic cells had failed to produce mucus and were tall, columnar, dark-stained epithelial cells in the form of extremely irregular acini.

Still another slide showed one of the metastatic nodules in the lung. It was made up of rather well differentiated adenocarcinoma. The degree of differentiation was about average for colonic carcinoma. A section of peritoneum showed fibrin and debris on the surface. There was a thick layer of heavily inflamed granulation tissue and metastatic tumor underneath it. There were myriads of peritoneal nodules of the neoplastic tissue. The inflammation appeared to have been present for at least two weeks.

In a slide of the acute colitis, shadowy outlines of the tubular glands of the colonic mucosa remained as indications of the original architectural pattern, but the epithelium was all necrotic, and throughout the stroma and broken-down epithelial tissue there was extensive and acute inflammatory reaction.

A section of liver tissue from an area that had been uninvolved by neoplasm showed some liver necrosis. There was patchy "drop out" of liver cells, with a few inflammatory cells, intense congestion and subacute cellulitis in the portal area. It was the type of picture we see in intraabdominal infection. Also, because of the extensive metastases in the liver, there was bile stasis within the liver, with some of the ducts dilated with plugs of inspissated bile.

An adrenal rest incorporated in the substance of the kidney was an incidental finding. Beneath the oral capsula, there was a small island of quite normal-appearing cords of cortical-adrenal tissue. It was not an encapsulated lesion. It was the sort

of adrenal rest in the kidney that at one time was responsible for hypernephroma.

The obstruction of the bowel could very nicely have served as a cause of the enterocolitis. In an article from the Mayo Clinic, 94 patients who contracted this type of enterocolitis were described. In a fairly high percentage of cases, the enterocolitis was thought to have occurred as a complication of bowel obstruction, and was limited to the part of the bowel above the obstruction. The authors mentioned that in 65 per cent of their colonic-obstruction carcinomas, the lesion was in the part of the bowel proximal to the obstruction. They felt that the obstruction was certainly an etiologic factor.

This disorder has been blamed upon antibiotics in some of the recent literature, but since the cases included in the Mayo Clinic survey had been fairly evenly distributed through a period that began 14 years before the advent of antibiotics and extended 14 years after their introduction, the investigators were dubious about the significance of antibiotic therapy in this entity. Antibiotics, of course, were used in the case which we are discussing.

As to the responsible organisms, the infection is usually a mixed one, in which the pyogenic cocci are important.

In this case, the possibility of a perforated appendix was suggested. At the time of autopsy, there was no gross perforation of the bowel to provide an explanation for the peritonitis. The cellulitis, however, went through the bowel wall, and the entire colon above the splenic flexure could readily have "leaked" organisms. That, I think, was the probable source of the infection of the peritoneum. At autopsy, however, nearly a month after the onset of the illness, it was difficult entirely to exclude the possibility of an earlier appendicitis. In acute appendicitis, the distal portion may become necrotic from ischemia, perforate and contaminate the peritoneum. Then, when it has drained, it can do a remarkably good job of healing in four weeks' time, so that the appendiceal lesion may be inconspicuous and the perforation may close. In this case, the appendix was imbedded in inflammatory tissue, as was everything else in the peritoneal cavity. It was not perforated, but it need not have been. Although I do not feel that we can entirely exclude the possibility that the patient did have an appendicitis, I think it is unlikely. The appendix was no more involved than was anything else in the peritoneal cavity at the time of her death.

Dr. Elmer L. DeGowin, Internal Medicine: How large were those lung metastases?

Dr. Warner: Well, some were as big as the end of your thumb.

Dr. Goddard: I have two questions to ask you, Dr. Warner. First, was there some mention of polyps? Second, were there any high in the colon, and was there any evidence of ulcerative colitis?

Thank you for bringing up the possibility of appendicitis, though I don't believe in it either.

Dr. Warner: In the colon below the lesion, there were five polyps, the last of which was 4 mm. in diameter. They were the usual little adenomatous polyps of the colon. None showed any evidence of malignant change, but they were interesting in connection with the relationship between polyps and carcinoma. In that connection, was there any family history of polyposis?

Dr. Goddard: We don't know.

Dr. Warner: Whether the patient had more polyps above the lesion or not, I don't think we can say. The mucosa was too extensively destroyed for us to be certain. The bowel did not look like chronic ulcerative colitis. It was a membranous inflammation, with massive necrosis of the mucosal surface and cellulitis spreading on through the wall.

Staff Man: Dr. Warner, do you think that the necrosis of the mucous membrane could be attributed to prolonged distention of the bowel above the tumor?

Dr. Warner: We see so-called stercoral ulcer above an obstruction, particularly with fecal impaction, but not ordinarily mass necrosis. This patient had a really massive obstruction, with almost total destruction of the entire bowel mucosa. I don't believe such phenomena would be likely without some destructive agent like the toxins of the bacteria concerned.

Staff Man: But it did not extend beyond the tumor?

Dr. Warner: It did not go beyond the obstruction. In 65 per cent of cases in the report from which I quoted, there was no enterocolitis distal to the obstruction.

Dr. Robert C. Hickey, Surgery: After looking at the third slide to which Dr. Warner referred, I came to the conclusion that the patient's course was pretty well charted long before she arrived on the Gynecology Service. On her admission, probably the most significant signs were her febrile course—indicating peritonitis—and her board-like abdomen, tenderness and leukocytosis. I think that the cachexia that was present should have made her physicians suspect the presence of another disease.

As regards the possible causes of the peritonitis, the examining physicians probably thought of trauma (instrumentation) and of some chemical type of peritoneal reaction. In gynecologic patients one naturally considers such possibilities. I can recall several patients in whom overwhelming peritonitis had resulted from turpentine, and several in whom it had resulted from trauma. Of course, neither mechanical perforation of a pelvic viscus, nor chemical peritonitis is likely in an infertile woman, such as this patient was.

Another cause of peritonitis would be alimentary-tract disruption and bacterial contamination of the peritoneal cavity. This would be most likely to have occurred from perforation of the colon—

which has been suggested—or less probably from seepage through the colon—which is apparently what happened in this case. In a young patient with peritonitis, a diagnosis of appendicitis would be more likely, and in the older patient, diverticulitis would be a better bet. Dr. Warner did mention that in the patient with an obstructing cancerous lesion of the colon, pseudomembranous colitis might be an accompaniment. I'd stress that appendicitis is a possible accompaniment of obstructing carcinoma. We have operated upon several patients for appendicitis when the precipitating factor was a more distally situated obstructive carcinoma of the colon.

The train of events that follows, in peritonitis, can probably be best compared with third-degree burns of the total skin surface. Grave electrolyte changes would accompany such burns, and there would be a cellular shift and compartmental shift of fluids in either instance. The management of this electrolyte and fluid balance must be on an hour-to-hour basis, and it cannot be well managed by resorting to or relying upon crystalloids or electrolytes alone. Rather, blood and plasma transfusions are required in large amounts. Also, perhaps more than in a patient who has been burned, there is a functioning absorbent surface which allows foreign proteins to contribute to the patient's general toxemia.

The essentials in the surgical management of a patient with peritonitis are, in general, to plug the hole or remove the focus that is causing the peritonitis, and then to aid the patient with antibiotics, chemotherapeutic agents and other supports so as to help him localize the disease or the abscesses in the various portions of the abdomen where localizations are likely to take place. Localization in the cul-de-sac, as has been demonstrated in this patient, is one possibility. Other possible sites are the lateral gutters, subphrenic areas and within the mesenteric loops.

This particular patient had another situation—a malignant neoplasm within the large bowel—and I thought you might be interested in learning how rare or frequent such a coincidence is. During this past year our own State Commissioner of Public Health, Dr. Edward G. Zimmerer, with co-authors Hanzell and Marcus of U.S.P.H.S., described the incidence of neoplasms within the State of Iowa for 1950. For all ages, the over-all crude rate for neoplasms of the colon, excluding the rectum, was 28 per 100,000. There is, however, a striking correlation between incidence and age. This girl was 23, and the incidence of colonic neoplasm in persons between 15 and 24 years of age is less than one per 100,000 of Iowa population. In the 75-85 year age group, however, the likelihood of carcinoma of the colon is in the neighborhood of 225 per 100,000. Thus, you can see that this girl's aliment was quite unusual for one of her age, and I think we might well direct our attention to the possibility that a predisposing condition may have brought about her cancer.

I should like to ask the examining clinician whether this girl had any pigmentation of the mouth to suggest Jegher's syndrome. This is described in association with polypi and adenocarcinoma of the small bowel in a youthful patient. Could some association occur in the large bowel where Jegher's polyposis is less frequent?

Dr. Warner has told us that polypi were present within the colon. It has certainly been known for a long time that there is an association between polypi and carcinoma. In the younger age group, this is particularly noticeable with the condition of familial or multiple polyposis, but I'm not sure whether we have such a family history for this patient.

Another possibility—and again I speak of a possibly predisposing condition—is chronic ulcerative colitis. I am sure that ulcerative colitis could be of segmental distribution, and although the changes that have been described are not identical with those of ulcerative colitis, I should like to ask Dr. Warner whether there may not be some possibility of our considering it chronic ulcerative colitis.

There has been a marked difference of opinion as to whether ulcerative colitis is actually a precancerous condition or not. On the one side, Dr. Ewing said in the last edition of his textbook, about 1940, that he thought the absence of an association between ulcerative colitis and carcinoma was quite remarkable. In support of the idea that there is no connection between them, a recent report of 1,000 ulcerative colitis patients at an Eastern hospital showed no such association. However, in a description by Yeoman in 1927 of seven cases of polyposis of the colon, the second case was not true polyposis, but ulcerative colitis. That was probably the first recorded instance of ulcerative colitis in association with carcinoma of the colon. Shortly thereafter, Bargen, of the Mayo Clinic, issued a report wherein this association appeared to be more frequent than might be explained on the basis of chance alone. In our own hospital, there is an incidence of 6 per cent colonic and rectal adenocarcinomas among all ulcerative colitis patients, and if we allow age corrections, we find that in the younger group who have been ill for 10 years or more, the incidence of carcinoma in ulcerative colitis patients rises to around 28 per cent. In all patients who have contracted ulcerative colitis in the teens, the incidence is about 13 per cent, but if one disregards those patients who have had the disease for less than five years, the rate is around 16 per cent. There is a definite association between the duration of the disease and the incidence of carcinoma, and the severity of the ulcerative colitis probably has some bearing, too. Very definitely, this is a condition which could predispose a very young person to carcinoma.

As far as pseudomembranous colitis is concerned, I wish to point out that it seems to be a hospital disease. The first description was by Finney, in about 1900, I think. Thus, antibiotics can't

have been solely responsible for it, even though it may now appear so.

To sum up, I should say that this patient had a common disease, carcinoma of the colon, though at a very unusual age. She died of peritonitis and its associated hypovolemia and sepsis.

Dr. Warner: As regards whether this patient may not have had idiopathic ulcerative colitis, I can't see that the possibility is more logical in her case than in other instances of so-called pseudomembranous enterocolitis or postoperative colitis. All of the damage in this bowel appeared acute. It was the rather typical picture of the so-called pseudomembranous or membranous enterocolitis. There certainly was no suggestion that she had previously had ulcerative colitis.

If we were to assume that this patient had idiopathic ulcerative colitis, we would have to conclude that her fatal attack was her initial one, judging from the patient's history and from the appearance of the bowel. Further, we should have to conclude that it was limited to the bowel segment above the obstructing carcinoma, and that it rapidly progressed to a mass necrosis of the entire mucosa, without much ulceration.

The carcinomas that arise as a complication of ulcerative colitis come from the polypoid bulbous masses of regenerating mucosa, rather than from the acute destruction of the mucosa. As Dr. Hickey pointed out, there is a time element involved—time for regenerative hyperplasia. In this patient, the carcinoma was of some duration, and would have had to develop lesions before the colitis started, as far as I can see.

The skin of the face and mouth is mentioned in the prosector's description as having appeared normal.

SUMMARY OF NECROPSY FINDINGS

The autopsy findings were those of malignancy complicated by bowel obstruction and infection. There was a rather well-differentiated adenocarcinoma primary in the splenic flexure of the colon. This encircled the bowel and appeared to obstruct the lumen completely. The colon and small bowel, except for the proximal jejunum, were greatly distended with gas and fecal debris. There were metastases to the peritoneum, regional and anterior mediastinal lymph nodes, and lungs, and there were extensive liver metastases.

No gross perforation of the bowel could be found, but there was acute and subacute generalized peritonitis. Extensive induration and inflammatory edema of the peripelvic tissues produced partial obstruction of the ureters with bilateral hydroureters, especially on the right. The pelvic inflammatory lesions appeared to be a part of the generalized peritonitis, with no localized primary focus of infection. The colon proximal to the obstruction was involved with a severe acute membranous enteritis. Almost the entire mucosal surface was covered by a greenish-yellow membrane which could be stripped off, leaving an intensely congested surface. Microscopically, much of the mucosa was necrotic and intermingled with the inflammatory membrane. Where incompletely destroyed, the glandular epithelium showed some regeneration. The cellulitis involved the entire bowel wall, and it is probable that the peritonitis resulted from direct spread of infection through the bowel wall, rather than from gross perforation. A mixture of organisms were grown from cultures from the bowel, peritoneum and foci of suppuration in the liver. Staphylococci, Streptococci and other gram-positive cocci were demonstrated microscopically in the bowel wall. Candida albicans was cultured from the bowel content, but was not demonstrated in the tissue sections.

Five small papillary adenomata were present in the distal colon. Other findings were those of sepsis. The immediate cause of death was the severe enteritis complicated by peritonitis in a patient with carcinomatosis.

ANATOMICAL DIAGNOSES

Adenocarcinoma of the colon, with complete obstruction at the splenic flexure and metastases to the liver, lungs, peritoneum, and regional and anterior mediastinal lymph nodes

Acute membranous colitis, severe, proximal to the tumor

Peritonitis, acute and chronic

Ileus, severe, proximal to the tumor

Papillary adenomas, small, sigmoid colon

Hydroureter, bilateral, greater on the right

Hydronephrosis, moderate, right

Visceral congestion, severe

Heterotopic adrenal cortex in kidney

Status post-colpotomy

Pleural effusion, bilateral, moderate.

INTERNATIONAL COLLEGE OF SURGEONS

The Eleventh Biennial International Congress of the International College of Surgeons will be held in Los Angeles, March 9-14.

An innovation of the meeting will be a surgical-emergencies panel to which members of AAGP are invited. The participants in that discussion will be Dr. George F. Lull, formerly general manager of the AMA; Dr. Claude S. Beck, of Cleveland; Dr. Winchell McCraig and Dr. Gershom Thompson, of the Mayo Clinic: Dr. Neal Owens, of New Orleans; and Drs. E. L. Compere and Philip Thorek, of Chicago.

The scientific program, to be presented in the Ambassador Hotel, will consist of papers by about 25 outstanding surgeons from 15 overseas countries, and by about 400 surgeons from the United States and Canada.

Additional information will be furnished on request by Dr. Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

Coming Meetings

In State

Feb. 4-5	**General Surgery.** S.U.I., Iowa City
Feb. 18-21	**GP Refresher Course.** S.U.I., Iowa City
Mar. 1	**Second Annual Conference, Raymond Blank Memorial Hospital Association.** Blank Hospital for Children, Des Moines
Mar. 3-4	**Postgraduate Course in Psychology.** S.U.I., Iowa City
Mar. 18-19	**Anesthesia.** S.U.I., Iowa City
Mar. 27-29	**Sectional Meeting, American College of Surgeons.** Hotel Fort Des Moines, Des Moines

Out of State

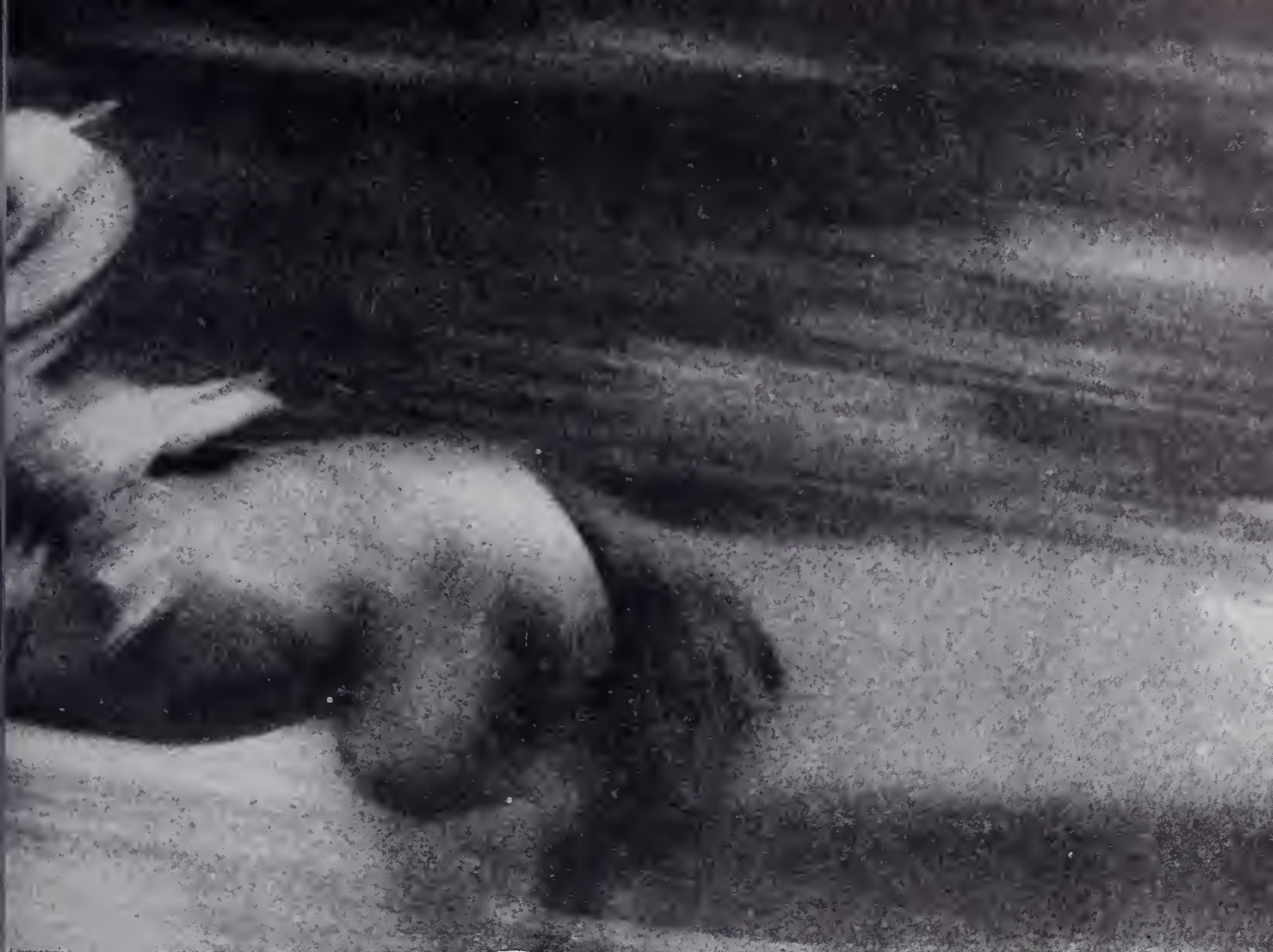
Feb. 1	**Pan-American Congress of Ophthalmology.** N.Y.C.
Feb. 1-2	**American Academy of Allergy.** Bellevue Stratford Hotel, Philadelphia
Feb. 1-6	**American Academy of Orthopedic Surgeons.** Waldorf-Astoria Hotel, N.Y.C.
Feb. 3-4	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Feb. 3-5	**Diagnosis and Treatment of Congenital Heart Disease.** N.Y.U., N.Y.C.
Feb. 3-7	**Application of Histochemistry to Pathology.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 3-7	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 3-8	**Rhinoplastic Surgery.** Tulane University School of Medicine, New Orleans
Feb. 3-14	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 3-14	**Laboratory Methods in Study of Pulmonary Mycoses.** U.S.P.H.S., Chamblee, Georgia
Feb. 4-6	**Otolaryngic Radiology.** Ohio State University Hospital, Columbus
Feb. 5-6	**Medical and Surgical Aspects of Urinary Tract Disease.** University of Buffalo School of Medicine, Buffalo
Feb. 5-6	**Review of Advances in the Specialties as They Apply to General Practice.** Frank E. Buntz Educational Institute, Cleveland Clinic Foundation, Cleveland
Feb. 5-7	**Graduate Assembly.** Jefferson Medical College, Philadelphia
Feb. 5-8	**American College of Radiology.** Drake Hotel, Chicago
Feb. 6-8	**Cardiovascular Diseases for General Physicians.** University of Minnesota, Minneapolis
Feb. 6-8	**Problems on Fluid, Electrolyte and Nutritional Balance.** University of Oklahoma, Oklahoma City
Feb. 6-8	**Society of University Surgeons.** Boston
Feb. 7-8	**Endocrinology.** U. of Nebraska College of Medicine, Omaha.
Feb. 7-8	**Physical Medicine in Office Practice.** U. of California, San Francisco
Feb. 9-11	**Annual Congress on Medical Education and Licensure.** Palmer House, Chicago
Feb. 10-11	**Impact of Newer Drugs Upon the Central Nervous System.** City of Hope Medical Center, Duarte, California
Feb. 10-12	**Endocrine and Metabolic Disease.** (Institute for Metabolic Research). Highland-Alameda County Hospital, Oakland
Feb. 10-12	**Recent Advances in the Physiological Aspects of Anesthesia.** University of Pennsylvania, Philadelphia
Feb. 10-13	**Radiology and Radioactive Isotopes.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 10-14	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 10-14	**Gastroenterology.** Duke University School of Medicine, Durham, N. C.
Feb. 10-15	**Neurology for General Physicians.** University of Minnesota, Minneapolis
Feb. 10-15	**Indirect Laryngoscopy, Voice Rehabilitation and Audiology (Columbia University).** Mount Sinai Hospital, N.Y.C.
Feb. 10-21	**Laboratory Methods in Diagnosis of Bacterial Disease—Part I.** U.S.P.H.S., Chamblee, Georgia
Feb. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Feb. 10-22	**Review of Neuroanatomy and Neurophysiology.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 10-22	**Surgical Technic in General Surgery—Course I.** Cook County Graduate School of Medicine, Chicago
Feb. 10-Mar. 8	**Experimental Basis of Psychiatric Theory.** Walter Reed Army Medical Center, Washington, D. C.
Feb. 12-13	**Annual Heart Symposium.** Indiana U., Indianapolis
Feb. 12-13	**Advances in Obstetrics and Gynecology.** Indiana U., Indianapolis
Feb. 12-14	**American Academy of Occupational Medicine.** New York City
Feb. 13-15	**Edema-Pathogenesis & Treatment.** U. of California, San Francisco
Feb. 15-17	**Orthopedics in General Practice.** U.S.C., Los Angeles
Feb. 17-18	**Clinical Chemistry.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 17-19	**Dynamics of Metabolic and Endocrine Disease.** Highland-Alameda County Hospital, Oakland
Feb. 17-21	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 17-21	**Latest Advances in Internal Medicine (American College of Physicians).** U.S.C., Los Angeles
Feb. 17-21	**Seminar in Dermatology and Syphilology (Designed for General Physicians).** N.Y.U., N.Y.C.
Feb. 17-21	**Recent Advances in Otolaryngology.** N.Y.U., N.Y.C.
Feb. 17-22	**Clinical Pediatrics.** N.Y.U., N.Y.C.
Feb. 17-28	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Feb. 18-21	**Midwinter Clinical Session, Colorado State Medical Society.** Shirley Savoy, Denver
Feb. 19-20	**Regional Rabies Conference.** LaSalle Hotel, Chicago
Feb. 19-21	**Orthopedics in General Practice.** N.Y.U., N.Y.C.
Feb. 19-21	**Effects of Drugs on the Central Nervous System.** City of Hope Medical Center, Duarte, Calif.
Feb. 20-22	**California Blood Bank Annual Meeting.** Miramar Hotel, Santa Barbara
Feb. 20-22	**Ophthalmological Advances.** N.Y.U., N.Y.C.
Feb. 20-22	**Medical Emergencies (U. of California).** Herrick Hospital, Berkeley
Feb. 20-22	**Cardiovascular Diseases (Northeast Florida Heart Association).** Prudential Building, Jacksonville, Florida
Feb. 20-22	**Central Surgical Association.** Deshler-Hilton Hotel, Columbus
Feb. 21-22	**Chicago Ophthalmological Society Annual Clinical Conference.** Drake Hotel, Chicago
Feb. 22-23	**Midwinter Conference of Los Angeles Radiological Society.** Biltmore Hotel, Los Angeles
Feb. 23	**Selected Medical and Neurological Problems (Ohio Academy of General Practice).** Netherland Plaza Hotel, Cincinnati
Feb. 24-25	**Acute Coronary Occlusion.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 24-26	**Auscultation of the Heart.** N.Y.U., N.Y.C.
Feb. 24-28	**Course for GPs.** U. of California, San Francisco
Feb. 24-28	**Pediatric Orthopedics.** Tulane University School of Medicine, New Orleans
Feb. 24-Mar. 7	**Laboratory Methods in Diagnosis of Bacterial Diseases—Part II.** U.S.P.H.S., Chamblee, Georgia
Feb. 24-Mar. 8	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Feb. 24-Mar. 20	**Hematology Laboratory Methods (Columbia U. College of Physicians & Surgeons).** Mt. Sinai Hospital, N.Y.C.
Feb. 25-27	**26th Annual Alumni Medical Convention, College of Medical Evangelists.** Hotel Biltmore, Los Angeles
Feb. 26	**General Surgery.** U. of California, Los Angeles
Feb. 26-27	**Neurology & Neurosurgery.** U. of Kansas Medical Center, Kansas City, Kansas
Feb. 26-28	**Cardiac Roentgenology.** N.Y.U., N.Y.C.
Feb. 27-28	**Dermatology.** U. of Tennessee College of Medicine, Memphis
Mar. 2-12	**Mediclinics of Minnesota.** Ft. Lauderdale, Florida

(Continued on page 96)



New rapid-acting ACHROMYCIN V Capsules offer more patients consistently high blood levels—at no sacrifice to the broad anti-infective spectrum of ACHROMYCIN Tetracycline, its low incidence of side effects, or its dosage and indications.

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Coming Meetings

(Continued from page 93)

Mar. 3-4 **Ophthalmology.** Ohio State University, Columbus

Mar. 3-4 **Varicose Veins.** Cook County Graduate School of Medicine, Chicago

Mar. 3-5 **Audiology.** N.Y.U., N.Y.C.

Mar. 3-5 **Basic Electrocardiography.** Indiana University, Indianapolis

Mar. 3-5 **Sixth Postgraduate Conference in Medicine & Surgery (U. of Texas).** Temple, Texas

Mar. 3-5 **Pediatrics for GP's.** U. of Minnesota Center for Continuation Study, Minneapolis

Mar. 3-6 **Sectional Meeting, American College of Surgeons.** Waldorf-Astoria Hotel, N.Y.C.

Mar. 3-6 **New Orleans Graduate Medical Assembly.** Roosevelt Hotel, New Orleans

Mar. 3-7 **Course for GP's. (U. of California).** Mt. Zion Hospital, San Francisco

Mar. 3-7 **Eleventh Annual Postgraduate Course on Diseases of the Chest.** Warwick Hotel, Philadelphia

Mar. 3-7 **Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago

Mar. 3-7 **Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago

Mar. 3-8 **Motor Anomalies of the Eye (Part I), for Specialists.** N.Y.U., N.Y.C.

Mar. 3-14 **Cystoscopy.** Cook County Graduate School of Medicine, Chicago

Mar. 3-14 **Radiology of the Gastrointestinal Tract (Columbia U).** Mt. Sinai Hospital, N.Y.C.

Mar. 3-21 **Cerebral Palsy.** Columbia-Presbyterian Med. Center, N.Y.C.

Mar. 3-28 **Endaural Otologic Surgery.** Northwestern University, Chicago

Mar. 5 **Arthritis & Rheumatism.** U. of California at Los Angeles.

Mar. 5-6 **Blood Dyscrasias (Michigan AGP).** Sheraton-Cadillac Hotel, Detroit

Mar. 5-6 **Obstetrics.** U. of Buffalo School of Medicine, Buffalo

Mar. 6-8 **Neuro-otolaryngology.** N.Y.U., N.Y.C.

Mar. 9 **E.N.T. Problems and Allergic Respiratory Disease (U. of Cincinnati).** General Hospital, Cincinnati

Mar. 9-14 **International Congress, International College of Surgeons.** Ambassador Hotel, Los Angeles

Mar. 10-12 **Pediatrics.** U. of Kansas Medical Center, Kansas City, Kans.

Mar. 10-14 **Bedside Cardiology.** U. of California, San Francisco

Mar. 10-14 **Motor Anomalies of the Eye (Part II), for Specialists.** N.Y.U., N.Y.C.

Mar. 10-21 **Laboratory Methods in the Diagnosis of Enteric Bacterial Diseases.** U.S.P.H.S. Communicable Disease Center, Chamblee, Ga.

Mar. 10-21 **Serologic Diagnosis of Parasitic & Mycotic Infections.** U.S.P.H.S. Communicable Disease Center, Chamblee, Ga.

Mar. 11-12 **Annual Lecture Series, Southwestern Pediatric Society.** Statler Hotel, Los Angeles

Mar. 11-13 **Dermatologic Principles for GP's.** University of Wisconsin, Madison

Mar. 12 **Diseases of the Skin.** U. of Nebraska Coll. of Medicine, Omaha

Mar. 13-15 **Pathogenesis and Management of Edema.** U. of Colorado Medical Center, Denver

Mar. 14-15 **Fourth Annual Surgery, Radiology and Pathology Symposium.** U. of Oklahoma, Oklahoma City

Mar. 14-15 **Symposium on Connective Tissue (Collagen) Diseases.** U.C.L.A., Los Angeles

Mar. 14-16 **Office Orthopedics for GP's.** (U. of Southern California). Hotel Statler, Los Angeles

Mar. 14-16 **Fractures & Dislocations.** Brooke Army Med. Center, Ft. Sam Houston, Texas

Mar. 17-18 **Cardiac Auscultation.** U. of Kansas Med. Center, Kansas City, Kans.

Mar. 17-19 **Sectional Meeting, American College of Surgeons.** Hotel Utah, Salt Lake City

Mar. 17-19 **Internal Medicine for Internists.** U. of Minnesota Center for Continuation Study, Minneapolis

Mar. 17-21 **Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago

Mar. 17-21 **Electrocardiography.** N.Y.U., N.Y.C.

Mar. 17-21 **Ophthalmic Pathology.** Walter Reed Army Medical Center, Washington, D. C.

Mar. 17-22 **Surgery of the Hand.** N.Y.U., N.Y.C.

Mar. 17-25 **Radiology of the Chest (Columbia U.),** Mt. Sinai Hospital, N.Y.C.

Mar. 17-28 **Cystoscopy.** Cook County Graduate School of Medicine, Chicago

Mar. 19 **Clinical Approach to Diseases of the Blood.** U. of California at Los Angeles

Mar. 19-20 **Orthopedics.** Indiana University, Indianapolis

Mar. 19-21 **Fluid & Electrolyte Balance.** U. of Tennessee, Memphis

Mar. 20-22 **California Society of Plastic Surgeons.** Del Monte Lodge, Del Monte, Calif.

Mar. 20-22 **Gynecology for Specialists.** U. of Minnesota Center for Continuation Study, Minneapolis

Mar. 20-22 **Pediatrics.** Tufts University, Boston

Mar. 20-22 **Refresher Course in Anesthesia.** Duke U. Hospital, Durham, N.C.

Mar. 20-22 **Surgery for Surgeons.** U. of Minnesota Center for Continuation Study, Minneapolis

Mar. 21-25 **Oregon Academy of Ophthalmology & Otolaryngology.** Oregon U. Medical School, Portland

Mar. 24-26 **Diabetes & Hypoglycemia,** U. of Pennsylvania, Philadelphia

Mar. 24-26 **Refresher Course in Allergic Conditions.** N.Y.U., N.Y.C.

(Continued on page xlv)

Second Annual Conference
Blank Memorial Hospital Association

The second annual conference of the Raymond Blank Memorial Hospital Association will be held at Blank Hospital, Des Moines, on March 1, 1958. All physicians are encouraged to attend.

PROGRAM

Morning Session

8:30-9:00 Registration

9:00 (Topic to be announced)—Warren E. Wheeler, M.D., professor of pediatrics and bacteriology, Ohio State University

10:00 "Pathology of Epiphysitis and Scoliosis"—Ignacio V. Ponseti, M.D., professor of orthopedic surgery at the S.U.I. College of Medicine

11:00 "Fibroelastosis at Raymond Blank Memorial Hospital"—John Gustafson, M.D., Des Moines

12:00 Luncheon

Afternoon Session

1:30 "Radiation Hazards"—James McMillan, M.D., Des Moines

2:00 SECOND ANNUAL LEE FOREST HILL LECTURE—A. Ashley Weech, M.D., professor of pediatrics, University of Cincinnati

3:00 "Neonatal Respiratory Insufficiency"—Herbert C. Miller, Jr., professor of pediatrics, University of Kansas

4:00-5:00 CLINICAL CASE PRESENTATIONS

The registration fee will be $10.00.



THE PUBLIC AND ITS SCHOOLS

Few developments in recent years have been more welcome than the public's renewal of interest in the academic activities of the public schools. The American people, it seems, are finally realizing once more that educational institutions should be asked to perform some really constructive services, besides furnishing custodial care and providing youngsters an environment where they may rehearse the live-and-let-live technics of our democratic society.

No more than two or three years ago, the NEW YORKER or some other magazine of its sort made all of us laugh—though rather shamefacedly—by pointing out that the principal distress accompanying a late pregnancy was the prospect it brought to the greying parents of having to go through another decade of PTA membership. Because at that time we didn't really expect grade and high-school teachers to accomplish anything other than a more or less efficient job of baby-sitting, the very thought of consulting with them about the details of it gave each of us a deep-seated pain.

Now a change is in progress, and it is evidenced, for example, by some statistics from the Des Moines Public Schools. During American Education Week last fall, despite an unseasonable storm that had dumped several inches of snow upon the streets, 35,580 Des Moines adults visited their children's classrooms, 879 of them in the daytime. Since the population of the city is approximately 200,000, it is evident that nearly everyone with a current connection with a public school visited it that week. Perhaps in a majority of instances, moreover, both fathers and mothers came, and in a few classrooms every set of parents put in an appearance. Parents seemed to understand that their purpose in coming was to find out what was being taught and learned, rather than to ask, "How is my child getting along?"

The American Legion, the Parent-Teacher Association and the National Education Association are to be complimented for their joint sponsorship of these visitations.

The chief benefit that results from such visits by parents is readily apparent in the morale of the youngsters. The children are thus given concrete evidence that their fathers and mothers think their school is really important. Without too much grumbling, their "folks" have taken time to go to the school, not to be entertained at a basketball game, to attend a school play, to listen to a music recital or to thumb through elaborately decorated booklets that even the youngsters know are virtually empty and worthless, but to talk with their teachers about textbooks, curricula and syllabi. Throughout the remainder of the school year, moreover, the children find their parents able to ask intelligent questions about their progress.

Teachers, too, are heartened by such visits by parents. Teachers are thoroughly convinced that their work is a worthwhile public service, but the time and effort that parents spend in coming to consult with them constitute a recognition for which they feel a need.

This reacquaintance has begun to have further valuable results. Largely in response to public insistence, the Des Moines Public Schools recently established special high school classes in chemistry, physics, history, English and mathematics for gifted youngsters, and following the lead of schools in Cleveland and elsewhere, Des Moines is beginning this month to provide additional, non-credit instruction in physics and chemistry on Saturdays for especially talented students who are willing to extend their school week to six days. These are splendid developments, and it is gratifying indeed to know that the stimulus for them came, in part at least, from parents and from the rest of the general public.

Inevitably, there are some dangerous suggestions that have been made. First, inviting experts from industry to address science classes in the high schools and taking students on trips to industrial laboratories and other such places would, by and large, be a waste of time. It is really urgent that potential leaders in science be trained as rapidly and as thoroughly as possible, and at the elementary level where youngsters must start in high school, their need is for instruction such as only their teachers are capable of giving them.

The federal government, as was to be expected, wants to put in its big oar. The program that has been proposed by HEW Secretary Folsom and endorsed by President Eisenhower would call for the expenditure of approximately $1,000,000,000 per year to subsidize, among other things, the employment of large numbers of counselors and to provide 1,000 college scholarships each year for deserving but poverty-stricken youngsters who, it is supposed, might not otherwise go to college.

Our nation's schools need more teachers—enough so that special classes for talented youngsters need not contain more than 20 pupils each—but *they do not need more administrative staff.* If enrollments in classes for the gifted were limited, the teachers of those groups could, and undoubtedly would, give their boys and girls all of the counseling they need.

As regards federal scholarships, no one has ever shown evidence which shook our belief that almost any capable youngster in this country who really wants a college education can get it. The exceptions are the few who must go to work to support widowed mothers and or younger brothers and sisters, and no one has yet proposed a scheme

rich enough to lift such obligations from young shoulders. Graduate students frequently need financial help, preferably in the form of long-term loans from private sources, but the need for the government's subsidizing unmarried college undergraduates is minimal.

Finally, federal government control would certainly accompany federal government money, and there would be a lessening of the fine cooperation on the local level which we have seen developing between teachers and the public.

AIR POLLUTION

It is ironic that with the coming of interplanetary travel, outer space may be the only area where man can escape the pollution for which he himself has been responsible. Fortunately, we can report that a search is being made for a remedy that will fall short of requiring us to get out of this world.

Under a program sponsored by U.S.P.H.S. and state health departments, the gravity of the situation is being assessed. Among many others, three cities in Iowa will be included in a national air-sampling network. Davenport and Des Moines have definitely been selected, and a third town, probably in northwest Iowa, will be chosen as the site for a station. Operations are scheduled to begin before the end of this year.

Each station will have a fan system which will force air through a fine filter screen. Each post will operate for 24 hours once each month, and afterwards the filter unit will be mailed in a special container to federal laboratories in Ohio for analysis of the substances that have been caught.

Though radiation fall-out is one of the substances that the filters will catch, the system is planned primarily for the detection and measurement of other sorts of contaminants. A major aspect of the project will be medical studies of the relationship between foreign materials in the air and the diseases that are concurrently prevalent in the area.

Pollution of the air is not a new complication of modern living. Four major air-pollution crises have occurred during this century. They include disasters in the Meuse Valley, Belgium, 1930; in Donora, Pennsylvania, 1948; in Poza Rica, Mexico, 1950; and in London, 1952, when over 4,000 people died in a four-day period.

The annual cost of smog damage to physical property in Los Angeles County is over $3,000,000, and the annual over-all economic loss attributable to air pollution for the country as a whole has been estimated as high as $6,000,000,000. Economic loss through respiratory-tract involvements are not included in those figures, for its has never been assessed.

Corrosion by polluted air affects metals, stone building materials, paint, leather, textiles, rubber and miscellaneous protective coatings. A very common minor disaster is the sudden disintegration of women's nylon stockings. Leather chairs and bookbindings deteriorate when the pollutant is sulfur dioxide of sufficient density. Rubber will crack in a high concentration of ozone.

We are familiar with the efforts of smog-ridden Los Angeles to control smoke from industrial plants, apartment houses and backyard incinerators. Effluvia from motor vehicle exhausts is another growing menace, and methods for controlling it are in their infancy. It is said that motors exude most pollutants when they are idling.

Air pollution has numerous biologic effects. Some of the lesser ones are lacrimation, rhinorrhea, cough and headache. Elderly individuals with heart disease develop bronchitis, emphysema, bronchial asthma and pulmonary fibrosis from breathing contaminated air. There is erosion of the lining epithelium, deciliation, submucosal edema, bronchial muscle spasm, and thrombosis of small arteries and veins.

In workers, the common symptoms are shortness of breath on exertion and increased fatigability. The relation of air pollution to lung cancer has been studied extensively in England, in the Detroit-Windsor area and in Greater New York City, as well as in Los Angeles County.

It will be interesting to note what facts are deduced from studies of air pollution in the State of Iowa. Perhaps we too are endangered, despite our area's low degree of industrialization.

IOWA PUBLIC HEALTH ASSOCIATION

Physicians in private practice are especially encouraged to attend and participate in the annual meeting of the Iowa Public Health Association, which is to be held at the Savery Hotel, in Des Moines, April 9-11, 1958. Besides doctors, lay administrators, engineers, health educators, nurses, sanitarians and statisticians will be present.

Iowa has both strengths and weaknesses in its community health programs. For one of the latter, doctors should be sure to read the President's Page (p. 99) in this issue of the JOURNAL. There, Dr. Sternagel proposes that members of the ISMS should work for the establishment of public health departments at the county level throughout the state.

The Iowa Public Health Association is an organization that certainly will be interested in the movement that Dr. Sternagel proposes, and is almost certain to support it.

Dr. Franklin H. Top, professor and head of the Division of Hygiene and Preventive Medicine at the S.U.I. College of Medicine, currently is president of the Iowa Public Health Association.

President's Page

Establishing County Public Health Departments

Adequate public health organizations are functioning in no more than a few Iowa counties or communities, and for that reason physicians in many areas must correspond with state and federal agencies to obtain services which might very well be made available locally. Thus, time is lost, and time frequently constitutes the difference between an isolated case and an epidemic, or even between life and death.

Dr. Walter Abbott, Dr. Elmer Larsen, Mr. Wilbur Quinn and I had the pleasure, recently, of visiting Pennsylvania and studying the progress that is being made there in the setting up of county health departments, spearheaded by the Medical Society of the State of Pennsylvania.

Public health service becomes more effective through organization at the local level. The county organization takes over the work of voluntary and local-government agencies *only with their consent.* It coordinates the work of the various societies that are interested in specific health problems such as mental health, TB, crippled children, cancer and the like. It serves various rural organizations and contributes to the maintenance of better health among farm families. It enables nursing services to reach more people, and in industrial areas it works with management and labor.

A county health department simplifies the process by which the physician secures vaccines and antigens; it collects and preserves local statistics on births, deaths and morbidity; it provides prompt laboratory studies and diagnostic testing for TB, parasitic diseases, typhoid, syphilis, etc.; it traces the sources of infections through epidemiologic procedures; it provides immediate tests for water, milk and food suspected of contamination; it brings cases of chronic illness or acute communicable disease to the attention of physicians; and it encourages people to visit a physician for preventive services.

Support for the establishment of a county health department must originate with the medical profession, and ideally it should come from the county medical society, for both the public and the doctors will be benefited.

First, the support of the general public must be obtained, by making a local survey of health needs, and following it with a program of education and information designed to point up the many advantages that would accrue from the establishment of a county health department. The people then vote on the question in an election.

The details on how a county health department operates, on its relationship to local, state and national health services, on its costs to the taxpayers, etc., are available to all ISMS members.

If county medical societies will investigate the matter, they are sure to find that the establishment of a county public health department will be a step toward the improvement of medical care.

Fred Sternagel

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

THE RELATION OF PSYCHIATRY TO PHARMACOLOGY, by *Abraham Winkler*, M.D. (Baltimore, The Williams & Wilkins Company, 1957. $4.00).

MODERN SEX LIFE, by *Edwin W. Hirsch*, M.D. (New York City, The New American Library, 1957. 35 cents).

THE HEALING OF WOUNDS: A SYMPOSIUM ON RECENT TRENDS AND STUDIES, ed. by *Martin B. Williamson*, Ph.D. (New York City, Blakiston Div. of McGraw-Hill Book Company, Inc., 1957. $7.00).

BOOK REVIEWS

THE STORY OF PEPTIC ULCER, by *Richard D. Tonkin*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $2.25).

For some strange reason in this era of over-abundance, the literature is sadly deficient in booklets written for the lay reader about peptic ulcer. This monograph is an attempt to fill the gap in an interesting fashion. It combines brief statements about the ulcer problem with cartoons drawn by Hellier. Comments about anatomy, age, geographical distribution, effects of emotional, mechanical and thermal irritants, and suggestions for outwitting the ulcer make up the contents of the book.

It seems to be the purpose of the book to entertain and educate at the same time. Some ulcer patients may benefit from this airy type of discourse, which incidentally is typically British. Some American readers may wish that the book had been made a little more serious.—*Daniel A. Glomset*, M.D.

THE PHYSIOLOGIC BASIS OF GASTROINTESTINAL THERAPY, by *Heinrich Necheles*, M.D., and *Martin M. Kirshen*, M.D. (New York City, Grune & Stratton, 1957. $8.75).

The authors of this text have collected their lectures on gastrointestinal physiology and its therapeutic applications in a concise volume. The material is well organized.

The chapters on the transmission of nerve impulses and drugs that affect the gastrointestinal musculature are particularly worthy of note. The discussion of therapeutic agents is quite up to date, even to a consideration of the use of chelating agents in porphyria. Controversial material is not considered in detail, but a comprehensive bibliography has been placed at the end of each chapter for the use of those who are interested in making a more detailed study of any selected topic.—*Samuel J. Zoeckler*, M.D.

INTRODUCTION TO ANESTHESIA: THE PRINCIPLES OF SAFE PRACTICE, by *Robert D. Dripps*, M.D., *James E. Eckenhoff*, M.D., and *Leroy D. Vandam*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $4.75).

As is implied by its subtitle, "The Principles of Safe Practice," this book stresses the safety factor in anesthesia. This emphasis is especially apparent in the early chapters on Pre-anesthetic Rounds, Physical Status and Choice of Anesthesia. The authors take pains to point out that a pre-anesthetic evaluation by the anesthesiologist definitely improves the overall risk to the patient.

In other chapters they discuss the fundamentals of anesthesia, and describe in detail the methods and technics of all forms of inhalation, intravenous, local and block anesthesias. The fine points in looking after the patient's comfort and peace of mind have not been overlooked. These are usually left for the student to learn through practical experience.

Attention is given to the recognition and treatment of the various complications which may develop during anesthesia or in the postoperative period, as well as to the methods by which postoperative pain and excitement can be reduced. The proper use and care of equipment, including methods of cleaning and sterilizing, are outlined.

This is an excellent text for the student or the resident in anesthesiology. For those who have long been in the specialty, it can serve as a review of many minor details that contribute to the safety of the patient.—*E. P. Lovejoy*, M.D.

THE YEARBOOK OF OBSTETRICS AND GYNECOLOGY (1957-1958 Year Book Series), ed. by *J. P. Greenhill*, M.D. Chicago, The Year Book Publishers, Inc., 1957. $7.50).

For the busy Ob.-Gyn. man or general practitioner, the YEARBOOK provides a convenient, concise and rapid summary of worthwhile literature for the year 1956-1957.

Dr. Greenhill's comments, as always, are sharp and stimulating.

The series of yearbooks puts a vast store of knowledge at the doctor's fingertips, and is well worth keeping intact.—*Claude H. Koons*, M.D.

Plan to attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines
April 20-23

Iowa Academy of General Practice

TENTH ANNUAL AAGP SCIENTIFIC ASSEMBLY

Dallas, March 24-27

The program for the Tenth Annual AAGP Scientific Assembly, to be held in Dallas, Texas, March 24-27, 1958, is the result of a year of committee work, and promises to be one of the best. There will be 15 hours of meetings and lectures, and for each hour that he attends, the AAGP member will be entitled to one hour of Category I study credit.

In addition to the scientific program, there will be many interesting scientific exhibits, as well as technical exhibits by pharmaceutical manufacturers and others who have an interest in the practice of medicine. Doctors' wives are most welcome to attend the scientific program, but a series of separate events is being planned for their entertainment.

Complete your plans to attend the Tenth Annual AAGP Scientific Assembly!

PROGRAM

Monday Afternoon, March 24

THE PROBLEM OF AGING

"Medical Problems"—Edward H. Hashinger, M.D., Kansas City, Mo.
"Psychiatric and Adjustment Problems"—Daniel Blain, M.D., Washington, D. C.
"Surgical Problems"—G. A. Hallenbeck, M.D., Rochester, Minn.

THE EMOTIONAL AND PHYSICAL PROBLEMS OF THE TEEN-AGER

Moderator—Andrew S. Tomb, M.D., Victoria, Texas
Pediatrician—John G. Young, M.D., Dallas
Psychiatrist—George A. Constant, M.D., Victoria, Texas

Tuesday Morning, March 25

"Biliary Tract Surgery"—Manuel E. Lichtenstein, M.D., Chicago
"The Indefinite Pelvic Mass"—Conrad G. Collins, M.D., New Orleans

PEDIATRIC MEDICINE

"Antibiotics in Pediatrics"—Erwin Neter, M.D., Buffalo
"Common Anemias of Infancy and Childhood"—Anthony V. Pisciotta, M.D., Milwaukee

Tuesday Afternoon, March 25

NEW DEVELOPMENTS IN MEDICINE

"Coronary Thrombosis"—Howard B. Sprague, M.D., Boston
"Peptic Ulcer"—Stewart G. Wolf, Jr., M.D., Oklahoma City
"Dermatology"—Everett C. Fox, M.D., Dallas
"Common Eye Emergencies"—Malcolm A. McCannel, M.D., Minneapolis
"The Dizzy Patient—Is It Labyrinthitis?"—Theo. Walsh, M.D., St. Louis

Wednesday Morning, March 26

DIAGNOSTIC CLINIC ON X-RAY INTERPRETATION

Leo G. Rigler, M.D., Los Angeles, moderator
Chest—Sol Katz, M.D., Washington, D. C.
Abdomen—Julian M. Ruffin, M.D., Durham, N. C.

LIMITATIONS OF THE EKG

Willis Hurst, M.D., Atlanta, moderator
E. Grey Dimond, M.D., Kansas City, Kan.
Bruce Logue, M.D., Atlanta

Wednesday Afternoon, March 26

MANIPULATIVE AND OPERATIVE OBSTETRICS

Herbert E. Schmitz, M.D., Chicago, moderator
Jack A. Pritchard, M.D., Dallas
Willard R. Cooke, M.D., Galveston
Robert A. Johnston, M.D., Houston

UROLOGIC PROBLEMS IN GENERAL PRACTICE

Lloyd G. Lewis, M.D., Washington, D. C., moderator
Harry M. Spence, M.D., Dallas
Daniel R. Higbee, M.D., Denver

Thursday Morning, March 27

TRAUMA

Nicholas J. Giannestras, M.D., Cincinnati, moderator
Fractures—Harrison L. McLaughlin, M.D., New York City
Hand Injuries—Michael L. Mason, M.D., Chicago
Head and Neck Injuries—Frank H. Mayfield, M.D., Cincinnati

MEDICAL HYPNOSIS WITH PRACTICAL DEMONSTRATIONS

William T. Heron, Ph.D., Minneapolis, moderator
Maurice E. Bryant, M.D., Colfax, Wash.
Milton H. Erickson, M.D., Phoenix

POSTGRADUATE COURSES IN IOWA

Do not forget the General Practice Conference to be held at Iowa City February 18-21, inclusive. The sessions are accepted for Category I credit.

Also, the S.U.I. College of Medicine is offering a two-day conference on anesthesia March 18 and 19, which is also acceptable for Category I credit.

Plans are in the making for the program which the Iowa Chapter will present at Templar Park, Spirit Lake, on June 19.

COUNTY MEDICAL SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY	DEPUTY COUNCILOR
Adair	L. H. Ahrens, Fontanelle	A. J. Gantz, Greenfield	A. J. Gantz, Greenfield
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Allamakee	R. R. Jeffries, Waukon		
Appanoose	R. L. Fenton, Centerville	R. R. Edwards, Centerville	E. A. Larsen, Centerville
Audubon	R. H. Payne, Exira	D. D. Schmitt, Kimballton	H. K. Merselis, Audubon
Benton	L. W. Koontz, Vinton	N. C. Knosp, Belle Plaine	N. C. Knosp, Belle Plaine
Black Hawk	C. A. Waterbury, Waterloo	Jean Le Poidevin, Waterloo	C. D. Ellyson, Waterloo
Boone	A. W. Puntenney, Boone	Walter Dennert, Boone	R. L. Wicks, Boone
Bremer	R. P. Hardwig, Waverly	H. M. Hanson, Waverly	F. R. Sparks, Waverly
Buchanan	P. J. Leehey, Independence	J. L. Mochal, Independence	P. J. Leehey, Independence
Buena Vista	A. B. Carstensen, Linn Grove	T. E. Shea, Storm Lake	T. E. Shea, Storm Lake
Butler	B. V. Andersen, Greene	F. F. McKean, Allison	F. F. McKean, Allison
Calhoun	P. W. VanMetre, Rockwell City	D. E. Conklin, Lake City	G. S. Rost, Lake City
Carroll	J. R. Martin, Carroll	J. M. Tierney, Carroll	J. M. Tierney, Carroll
Cass	J. L. La Rue, Anita	E. M. Juel, Atlantic	R. M. Needles, Atlantic
Cedar	H. E. O'Neal, Tipton	O. E. Kruse, Tipton	H. E. O'Neal, Tipton
Cerro Gordo	H. G. Marinos, Mason City	J. R. Utne, Mason City	H. G. Marinos, Mason City
Cherokee	D. C. Koser, Cherokee	R. D. Berge, Aurelia	D. C. Koser, Cherokee
Chickasaw	P. C. Richmond, New Hampton	D. L. Trefz, Nashua	M. J. McGrane, New Hampton
Clarke	H. E. Stroy, Osceola	G. I. Armitage, Osceola	G. B. Bristow, Osceola
Clay	E. E. Munger, Jr., Spencer	Eunice M. Christensen, Spencer	C. C. Jones, Spencer
Clayton	D. W. Pfeiffer, McGregor	E. E. Zehr, Guttenberg	P. R. V. Hommel, Elkader
Clinton	B. B. Dwyer, Clinton	J. J. Young, Clinton	V. W. Petersen, Clinton
Crawford	C. H. Fee, Denison	D. N. Crabb, Denison	R. M. Johnson, Denison
Dallas-Guthrie	W. A. Castles, Dallas Center	C. A. Nicoll, Panora	A. G. Felter, Van Meter W. A. Seidler, Jr., Jamaica
Davis	W. D. Haufe, Bloomfield	S. R. Jaskunas, Bloomfield	H. J. Gilfillan, Bloomfield
Decatur	G. W. Swanson, Lamoni	E. E. Gamet, Lamoni	E. E. Gamet, Lamoni
Delaware	W. J. Mehrl, Manchester	H. M. Anderson, Strawberry Point	R. E. Clark, Manchester
Des Moines	J. F. Foss, Burlington	R. B. Allen, Burlington	J. F. Foss, Burlington
Dickinson	R. J. Coble, Lake Park	Ruth F. Wolcott, Spirit Lake	Ruth F. Wolcott, Spirit Lake
Dubuque	E. J. Connelly, Dubuque	F. B. Merritt, Dubuque	D. F. Ward, Dubuque
Emmet	H. A. Lindholm, Armstrong	R. M. Turner, Armstrong	E. K. Vaubel, Estherville
Fayette	R. S. Jaggard, Oelwein	D. B. Jack, Oelwein	A. F. Grandinetti, Oelwein
Floyd	E. J. Goen, Charles City	J. B. Miner, Charles City	E. V. Ayers, Charles City
Franklin	A. P. Smith, Hampton	D. K. Benge, Hampton	W. L. Randall, Hampton
Fremont		A. R. Wanamaker, Hamburg	A. R. Wanamaker, Hamburg
Greene	G. F. Canady, Jefferson	B. C. Bridge, Jefferson	E. D. Thompson, Jefferson
Grundy	L. E. Frink, Reinbeck	J. R. Jaquis, Reinbeck	E. A. Reedholm, Grundy Center
Hamilton	R. C. Crumpton, Webster City	E. F. Brown, Webster City	W. B. McGahey, Webster City
Hancock-Winnebago	J. T. Mangan, Forest City	J. O. Moermond, Buffalo Center	T. J. Irish, Forest City
Hardin	R. B. Sherman, Ackley	F. N. Cole, Iowa Falls	L. F. Parker, Iowa Falls
Harrison	C. W. Byrnes, Dunlap	R. G. Wilson, Missouri Valley	A. C. Bergstrom, Missouri Valley
Henry	R. B. Widmer, Winfield	Mary Couchman, Mt. Pleasant	W. H. Megordon, Mt. Pleasant
Howard	C. A. Field, Cresco	D. C. Maland, Cresco	P. A. Nierling, Cresco
Humboldt	Beryl F. Michaelson, Dakota City	Nelle Schultz, Humboldt	I. T. Schultz, Humboldt
Ida	E. H. Heilman, Ida Grove	J. B. Dressler, Ida Grove	R. E. Underriner, Holstein
Iowa	B. M. Byram, Marengo	I. J. Sinn, Williamsburg	C. F. Watts, Marengo
Jackson	R. D. Dempewolf, Bellevue	L. B. Williams, Maquoketa	O. L. Frank, Maquoketa
Jasper	L. D. Norris, Newton	M. L. Jones, Colfax	J. W. Ferguson, Newton
Jefferson	R. A. Ryan, Fairfield	J. N. Morgan, Fairfield	J. W. Castell, Fairfield
Johnson	L. H. Jacques, Iowa City	J. R. Maxwell, Iowa City	L. H. Jacques, Iowa City
Jones	G. F. Brown, Anamosa	J. L. Bailey, Anamosa	T. M. Redmond, Monticello
Keokuk	K. L. McGuire, Keota	R. Giles Gillett, Sigourney	R. G. Gillett, Sigourney
Kossuth	J. M. Schutter, Algona	D. L. Bray, Algona	M. G. Bourne, Algona
Lee	R. A. Kemp, Keokuk	Sebastian Ambery, Keokuk	G. H. Ashline, Keokuk R. L. Feightner, Ft. Madison
Linn	P. I. Crew, Cedar Rapids	A. E. Berndt, Cedar Rapids	H. J. Jones, Cedar Rapids
Louisa	J. H. Chittum, Wapello	L. E. Weber, Jr., Wapello	
Lucas	Dean Curtis, Chariton	R. E. Anderson, Chariton	A. L. Yocom, Chariton
Lyon	H. H. Gessford, George	S. H. Cook, Rock Rapids	S. H. Cook, Rock Rapids
Madison	J. E. Evans, Winterset	R. W. Carson, Winterset	J. E. Evans, Winterset
Mahaska	F. O. W. Voigt, Oskaloosa	K. D. Campbell, Oskaloosa	R. L. Alberti, Oskaloosa
Marion	T. D. Clark, Knoxville	D. H. Hake, Knoxville	Dexter Hake, Knoxville
Marshall	C. R. Sokol, State Center	H. E. Sauer, Marshalltown	R. C. Carpenter, Marshalltown
Mills	W. A. DeYoung, Glenwood	M. L. Scheffel, Malvern	M. L. Scheffel, Malvern
Mitchell	R. B. Isham, Osage	Keith Hughet, Osage	T. E. Blong, Stacyville
Monona	L. A. Gaukel, Onawa	W. P. Garred, Onawa	H. L. Ganzhorn, Mapleton
Monroe	R. A. Smith, Albia	D. N. Orelup, Albia	D. N. Orelup, Albia
Montgomery	G. M. Skallerup, Red Oak	J. D. Fickel, Red Oak	E. L. Croxdale, Villisca
Muscatine	R. F. Klein, Muscatine	J. L. Parks, Muscatine	K. E. Wilcox, Muscatine
O'Brien	A. D. Smith, Primghar	L. H. Mattice, Sheldon	E. B. Getty, Primghar
Osceola	H. B. Paulsen, Harris	T. J. Carroll, Sibley	F. M. Rizzo, Sibley
Page	H. S. Frenkel, Clarinda	K. V. Jensen, Clarinda	K. J. Gee, Shenandoah
Palo Alto		C. C. Moore, Emmetsburg	H. L. Brereton, Emmetsburg
Plymouth	J. P. Trotzig, Akron	F. C. Bendixen, Le Mars	H. L. Vander Stoep, LeMars
Pocahontas	C. L. Jones, Gilmore City	H. L. Pitluck, Laurens	C. L. Jones, Gilmore City
Polk	A. B. Phillips, Des Moines	D. O. Newland, Des Moines	M. T. Bates, Des Moines
Pottawattamie	S. A. Cohen, Council Bluffs	R. B. Leander, Council Bluffs	G. H. Pester, Council Bluffs
Poweshiek	W. M. Page, Montezuma	H. R. Light, Grinnell	T. V. Niemann, Brooklyn
Ringgold	D. E. Mitchell, Mount Ayr	J. W. Hill, Mount Ayr	H. J. Hausheer, Mt. Ayr
Sac	John Hubiak, Odebolt	Manly Michaelson, Lytton	Don Michaelson, Sac City
Scott	R. A. Berger, Davenport	A. B. Hendricks, Davenport	T. W. McMeans, Davenport
Shelby	C. V. Bisgard, Harlan	W. S. Markham, Harlan	J. H. Spearing, Harlan
Sioux	C. D. Oelrich, Sioux Center	A. L. McGilvra, Sioux Center	M. O. Larson, Hawarden
Story	Gail A. McClure, Ames	K. C. Piercy, Ames	J. D. Conner, Nevada
Tama	R. W. Linthacum, Dysart	A. J. Havlik, Tama	A. J. Havlik, Tama
Taylor	R. W. Boulden, Lenox	G. W. Rimel, Bedford	R. W. Boulden, Lenox
Union	H. G. Beatty, Creston	H. J. Peggs, Creston	H. J. Peggs, Creston
Van Buren	Kiyoshi Furumoto, Keosauqua	J. T. Worrell, Keosauqua	Kiyoshi Furumoto, Keosauqua
Wapello	K. E. Lister, Ottumwa	R. A. Hastings, Ottumwa	C. R. Phelps, Ottumwa
Warren	L. W. Porter, Indianola	R. C. McGeehon, Indianola	C. A. Trueblood, Indianola
Washington	C. A. Boice, Washington	G. J. Nemmers, Washington	G. E. Montgomery, Washington
Wayne	D. R. Ingraham, Sewal	C. F. Brubaker, Corydon	D. R. Ingraham, Sewal
Webster	H. F. Kiesling, Lehigh	E. M. Swanson, Fort Dodge	C. J. Baker, Ft. Dodge
Winneshiek	L. E. Larson, Decorah	J. W. Holtey, Ossian	E. F. Hagen, Decorah
Woodbury	P. M. Cmeyla, Sioux City	J. P. Tiedeman, Sioux City	D. B. Blume, Sioux City
Worth	M. P. Allison, Northwood	W. G. McAllister, Manly	C. T. Bergen, Northwood
Wright	C. A. Aageson, Dows	R. F. McCool, Clarion	S. P. Leinbach, Belmond

THE DOCTOR'S BUSINESS



How to Select an Investment Fund

HOWARD D. BAKER

WATERLOO

In past issues, we have discussed balancing an investment portfolio through the purchase of fixed and variable types of investments, and we have discussed the dollar averaging of cost.

For the average doctor today, with limited knowledge of investments and even more limited time for managing them, a properly selected program of monthly accumulation in one or more high-grade investment funds offers many advantages and can be used to fulfill the need for variable type investments. With such a program go the advantages of capable management, diversification, dollar averaging of cost and outstanding growth potential.

WHAT IS AN INVESTMENT COMPANY?

Investment funds or companies buy, hold and sell stocks and bonds much as individual investors might do for themselves, but because they have larger amounts of money, they can achieve greater safety through diversifying their investments more broadly and can employ experts to decide when and what to buy or sell. Investment funds have two sources of income; they collect dividends on the securities that they hold, and they make capital gains on at least some of the stocks that they sell.

There are two principal types of investment companies—"closed end" and "open end." Shares in "closed end" companies are listed on stock exchanges, and brokers charge their customary fees for both buying and selling them. "Open end" or "mutual" shares are not listed on stock exchanges, and though a "loading charge" is collected at the time of purchase, one usually is charged nothing when he sells them. Like other stocks, shares in "closed end" funds can be bought on the monthly-purhase plan offered by most members of the New York Stock Exchange; each of the "open end" funds operates a monthly-purchase plan of its own.

HOW TO MAKE COMPARISONS

How should one go about choosing such a fund or funds? The market-value factor in investment fund shares is not an accident. The elements of diversification, selection and supervision play major roles in determining the value of a fund's shares at any given time.

Two principal factors are included in the performance of an investment fund: (1) the direction and extent of change in market value of its shares over a given period; and (2) the dividends that the fund has paid during that period (a) from dividends on securities that it owns, and (b) from capital gains on securities that it has sold. Performance represents the managers' ability to serve the shareholder within the limits of their pre-stated investment policy.

If diversification has been inadequate, the shares of the fund will have been subject to relatively wide fluctuations and great risk. If selection has been poor, the fund shares will have failed to rise in a rising market, or will have fallen disproportionately in a falling one. If supervision is poor, the fund is certain not to attain its investment objective.

The size of dividend and capital-gains distributions paid in a given period is another indication of the management's ability. But of course one must consider this aspect of performance in the light of the fund's objective. A fund organized primarily to produce dividend income can be expected to pay rather impressive amounts, but the success of a fund geared to capital growth is indicated by increases in the market value of its shares. Examining a fund's history will disclose how well it has achieved its goal.

Performance is the most important single factor in a judgment of the merits of an investment fund. Too often, an investor makes his choice of fund on some such erroneous basis as the local availability of the shares or the amount of the brokerage or "loading" charge.

Performance records on many of the funds are available through brokers and investment counselors and through such publications as Wiesenberger's "Investment Companies" and Johnson's "Investment Company Charts." One should study such performance records before making a choice.



Blue Cross
Blue Shield



Is Blue Shield a "Third Party"?

"Blue Shield Plans exist only to help the medical profession facilitate the provision of its services to the people. . . . Blue Shield is an organization of the profession itself, and not a third party between doctor and patient."

So declared the Blue Shield Commission in a recent policy statement. The Commission is the elected board of directors of "Blue Shield Medical Care Plans," an association made up the 70-odd medical society-sponsored, non-profit Blue Shield organizations. A preponderant majority of the commissioners are doctors of medicine.

Through its own instrument, Blue Shield, the medical profession pioneered the great uncharted realm of medical prepayment at a time when commercial insurance companies declared it was actuarily impossible and when the bureaucrats in Washington asserted that only big government could do the job.

What is a "third party between doctor and patient"? In simplest terms, a "third party" must be some person or agency over whom neither the first party (the patient) nor the second party (the doctor) has any direct control —someone independent of both doctor and patient.

The first requirement of a medical prepayment plan that wants to call itself Blue Shield is that it be approved by the county or state medical society in the area which it serves. The second requirement is that all medical policies and operations be under medical control. Third, it must earn the voluntary participation of at least a majority of the doctors in its territory.

Blue Shield is not a "third party." In truth, Blue Shield has proved that doctors and patients, working together, can solve the problems of medical economics without the intercession of a third party.

MEDICAL HISTORY



The Langer Case

GEORGE E. MORRISSEY, M.D.

DAVENPORT

In the fall of 1955 when I began preparations for writing an article in commemoration of the centennial of the Scott County Medical Society, I had hopes that the carefully preserved first book of minutes of the organization would be a rich source of material. When I paged through it, however, I saw that however rich the vein might be, the job of mining it wouldn't be an easy one. As the pages have yellowed, the ink has faded. The handwriting, full of flourishes which were highly admired in their day, contributed to the general illegibility of the text, and the phrasing was a labyrinth of verbosity of which I shall shortly have occasion to present some samples. I thus came to the conclusion that my deadline didn't permit my attempting to use much of it.

Nevertheless, I did take note of the insert which follows, in part because it was printed and in part because the book kept falling open at the page to which it was attached.

PREAMBLE AND RESOLUTION
PASSED AT THE QUARTERLY MEETING OF THE SCOTT COUNTY MEDICAL SOCIETY, OCTOBER 25, 1859

"WHEREAS, at the previous meeting of the SCOTT COUNTY MEDICAL SOCIETY, held July 26th, 1859, IGNATIUS LANGER was found guilty of a charge then preferred against him, of making and repeating from day to day certain unwarrantable examinations and manipulations of a pregnant female, previous to the time of labor, with the pretended object of discovering and correcting a mal-position of the Foetus in Utero, and of publicly proclaiming the object and intention of his repeated visits to said patient;

"AND WHEREAS, said Langer, in the face of an unanimous vote of this Society condemning the practice, still persist in his avowed determination of requiring females to submit to any examination of their persons which he may think proper to make at any time during their pregnancy, which is contrary to all authority and usage, and derogatory to the dignity and decency which should ever characterize the conduct of a physician and gentleman;

"AND WHEREAS, certain other charges, then preferred against him, which were submitted to the investigation of a special committee, have been well and fully substantiated by testimony adduced by various persons, members of this Society, and others, and which charges constitute special and distinct violations of the letter and spirit of the Code of Ethics, by which this Society is governed;

"AND WHEREAS, during this investigation, said Langer has publicly uttered various contumelious remarks regarding the members of this Society individually and as an association of professional men, thus exhibiting his disregard of the opinions and actions of the Society, endeavoring to cast upon it the imputation of ignorance and the want of a generous spirit of tolerance;

"AND WHEREAS, this Society deems it due to its own self-regard, and to the standing which it has ever endeavored to sustain among all honorable organizations of its kind, to protect itself against these aspersions, to discountenance and condemn, in the most emphatic manner, the indecent and disgusting practices above mentioned; therefore be it

"RESOLVED, that the said Ignatius Langer is no longer worthy of fellowship with us, having forfeited all claims thereto; that hereafter we individually and collectively will hold no further professional intercourse with him, and that he be and is hereby formally and finally expelled from the membership of this Society."

I suppose that my reactions upon first reading that document were very much the same as anyone else's would have been. First, I thought, "Why, the old scoundrel! It served him right!" Then curiosity drove me to look into the matter further. Perhaps the motivating force is something out of my dim past—a secret between my analyst and me—that compels me to investigate "manipulations of a . . . female," pregnant or not.

In the spring of 1956, after I had recovered sufficiently from the effects of the rich fare and heady tributes of our Society's centennial celebration and once more possessed a clear mind for the task, I made my first tentative soundings of the depths of Langer's degradation.

At once it became apparent that there was a story behind this act of the Scott County Medical Society, and as I traced it, the faded handwriting seemed to grow clearer and the edge of the book became feathered with my place-marks.

THE BACKGROUND

So come along with me, down the Mississippi, down to the levee at Davenport, Iowa, and scuff through the dust and clop over the board walks about three blocks up the street to the office of Dr. Witherwax. It is October 18, 1856, three years before Dr. Langer's expulsion, and in the flickering gaslight, "Sec'y *pro tem*" Tomson is scratching his postscript to the minutes of the doctors' first meeting:

"It is only through associated action that we can hope to check the accursed influence of empiricism and quackery in our midst.

"As true Science is imperishable, we confidently expect that the day is not far distant when the minds of the people will no longer give credence to the falsehoods of the pretender and the Empiric. For the consummation of that happy event we will toil and we will hope."

And so they toiled.

One month later, Dr. Carter introduced for consideration the practice of giving service to a family on contract for a yearly fee. The Society discountenanced this idea and reaffirmed its published fee bill.

Then, at the start of the new year 1857, perhaps to sound its keynote, Dr. Fountain arose to submit a report on behalf of Dr. Adler and himself. Those two men had been accused of neglecting a surgical case. According to Tomson, "The minuteness of the details . . . fully exculpated them from the odium which the false rumor had given them."

Alder then threw a punch at the practice of advertising medical services in the newspapers, and he was followed by the president of the Society, Dr. Barrows, who aimed a roundhouse right at quackery in all its forms. He exhorted his colleagues to form a vigilance committee.

On April 28, 1857, the final draft of the constitution and by-laws of the Scott County Medical Society was adopted, and while the members advanced individually to peruse the document and affix their signatures, Dr. Fountain spoke on the use of belladonna to prevent suppuration of the breast, Dr. Gregg spoke of a case of biliary calculus of long standing that had been cured by large doses of olive oil, and one Ignatius Langer was unanimously welcomed into the Society. We find his signature among those of the original signers, neither less prominent nor bolder than the rest.

At the afternoon session, "a member" accused of performing an autopsy with an irregular came forward and with great frankness and in the proper spirit stated the facts. Then the president, the minutes tell us, "reproved him in a faithful yet kindly manner, all of which the erring brother received with good grace."

It was to be hoped that a newcomer such as Langer would have been duly impressed by that morally-charged atmosphere and would have resolved, as he left the hall, to keep forever in the center of a righteous path. But as we shall see, a spark of rebellion lay ever smouldering in the heart of that sturdy Hungarian.

EARLY RUMBLINGS

One year later, in April, 1858, when hay was selling for $70 per ton in Davenport, and two new fire engines, the "Pilot" and the "Witch," weighing about 1½ tons each, had just arrived from Boston, the Society met again. The morning session was highlighted by a report from the Board of Censors that "a member" had been accused of consulting with an irregular practitioner. After the accused had denied the rumor and after the matter had been discussed, a resolution was adopted calling for the withdrawal of the report and the dismissal of the charges. But at the afternoon session Dr. Fountain offered a resolution, to become a part of the Code of Ethics, requiring the expulsion of any member adjudged guilty of associating with quacks or irregulars, whether "by accident or other encounter in the house of a patient or any other time or place." Twelve members voted "aye"; Drs. Langer and Shelton dissented.

Next, Dr. Baker proposed that "apothecaries should cease acting the part of physicians by prescribing medicine," and asked that whenever such an individual might thenceforth be accused of doing so, "he should first receive the disapprobation of the Society, and for continuance of same . . . be publicly exposed."

Perhaps in an attempt to test the sincerity of his fellow-members, Langer proposed an amendment adding (1) the sale of patent medicines and (2) the filling of prescriptions written by irregulars to the list of practices for which apothecaries should be punished. When the amendment failed of adoption, Shelton moved to strike out the final phrase of the original motion, the one that called for public exposure. His amendment also was defeated, and the adoption of the resolution followed.

Despite his contrary behavior at that meeting, Dr. Langer was named as one of the eight delegates to the State Convention.

But the coals of rebellion were glowing. On May 8, a special meeting was held at the instigation of Barrows, Witherwax and Carter. The Board of Censors reported that a letter of Shelton's which had been printed in the DAILY GAZETTE and which was intended to explain the negative votes that he and Langer had cast had given the public to understand that "the lives of patients were to be sacrificed for the sake of preserving the dignity of the profession." The vote on whether or not the report should be adopted was 13 for, and 1 against (Langer's).

Tomson then offered a page-long resolution full of *whereas's* calling for Shelton's excommunication, and it too was adopted over the objections of a minority that included Langer, but then, as

an afterthought, it was tabled for reconsideration at the next quarterly meeting. In July, when that next meeting was held, it was announced that Shelton had written a letter of apology. It was the Society's pleasure to drop the charges, but before a resolution to that effect could be brought to a vote, Barrows persuaded a majority of the members that the phrase "drop the charges" should be eliminated in favor of "forgive him the charges of which he has been guilty."

At that meeting Langer again distinguished himself by casting the only negative vote on the question of accepting a committee report on revision of the fee bill.

The City of Davenport continued to live, breathe and prosper. The population had increased nearly 50 per cent in two years, from 11,000 to 16,000. On the Fourth of July of that year, 1858, Old John Brown, still with body and soul together, came into town in a covered Conestoga wagon looking for victuals. At a store which he found open on Front Street, he bought $400 worth of side meat, flour and sundries. In loading the supplies into the wagon, the proprietor laid the supplies over a floor covered with rifles, ammunition and sidearms. Old John was on his way to a rendezvous at Starkville, Illinois.

One hot Sunday afternoon there was a riot between the police and some ferryboat hands which was termed "disgraceful," probably to distinguish it from riots not disturbing the Sabbath.

In the winter, fires were frequent and disastrous. Usually nothing was salvaged from the affected buildings, and often more than one building went up in a single blaze. Thirteen dwellings burned in one night near Fifth and Brady.

In the spring of 1859, when the sap began to stir in Langer, a special meeting of the Scott County Medical Society was called at his insistence and at his office. The date was March 24. With great enthusiasm, Langer revealed the results of his investigations and experiments with regard to the subcutaneous introduction of medicine into the human body, and he exhibited his instruments.

There is no record that a tumultuous ovation was accorded him. Rather, a committee was appointed to report on this novelty at the next regular meeting of the Society, and as we shall see, a much more sensational matter arose and put it in the shade. Meanwhile, Davenport played host to a meeting of the State Medical Society in June.

Of the 15 members whose donations for the financing of that meeting totaled $111, Langer was a principal contributor, for he put in $10. Mr. McGill furnished supper for $100, notices in the paper cost $3 and the bill for gaslight was $3. The Dubuque and Keokuk Packet Company offered to give free return boat passage, but when the superintendent of the M. & M. railway was asked to do likewise, he promptly refused. Perhaps the refusal can be explained by the fact that money was a little tighter than it had been. Many citizens who had rallied to the cry "Pike's Peak or Bust!" and had rushed across the plains that spring to pick up a fortune in Rocky Mountain gold were returning, thoroughly disillusioned and with empty pockets.

SUSPENSION

July 26 was the day of the regular quarterly meeting of the County Medical Society. During the morning session the charge of unwarranted examination and manipulation was brought against Langer. Since the Board of Censors had just announced that it had no report to make, we must assume that it was Barrows who read it and Witherwax who co-signed it.

Now hear the original charge that was made on that morning:

"That he had violated the general spirit of the code by his practice in a case of pregnancy which occurred in this place and which for several days prior to the day of confinement he made unwarrantable examinations and manipulations with the pretended object of correcting the presentation of a fetus in utero, deceiving the patient by informing her the child had an unnatural position and that it became necessary to change it. A practice purely deceptive, an impossibility in fact, and its details highly indelicate and dishonorable."

The book of minutes then states that ". . . during its discussion Langer came in . . . and requested permission to give an explanation, which was granted."

Barrows opened the afternoon session with what came to be known as Specification No. 2. It appears in the book as follows:

"Also, that in his general intercourse with the public he is boastful of cures which he professes to have made, vaunting continually his own superior skill, thrusting and forcing himself into families by volunteering advice, by which practices he continually violates the code of ethics. . . ."

Langer's supporters would contend that Barrows brought Specification No. 2 because Langer had made too good a case for himself at the close of the morning meeting.

Thereafter, Langer was heard again. Then Carpenter tried to get the Society to adopt a resolution sustaining the first of the charges. During the ensuing discussion, Adler proposed as an amendment that Langer be suspended while the so-called Second Specification was being investigated. Both proposals ended as resolutions which the Society voted upon separately. They passed unanimously.

Saunders, Maxwell and Thistle, three honorable men, were named to the Investigating Committee. Before coming to Davenport in 1855, Saunders had been a member of the New Jersey State Senate, and shortly thereafter he became an Iowa State Representative. He was to become the government's assessor of damages caused by Sherman's

army in eastern Tennessee. Maxwell was destined to campaign with Grant and be cited for his valor before Vicksburg. Thistle, a Southerner transplanted into a Northern hotbed, had "perhaps the largest practice in the city," probably on account of his well-known "courteous and modest manner."

EXPULSION

Davenport was a righteous city. That autumn an ordinance was passed against unlawful assembly on the Sabbath in dance houses, beer halls, grog shops and drinking saloons, and on October 25 a most self-righteous County Medical Society met to consider Ignatius Langer.

The minutes of the last meeting were read. Langer rose to correct the minutes and was squelched. He was told that being under suspension he could not take part in the proceedings.

The report of the Investigating Committee, consisting of Saunders, Maxwell and Thistle, was read, and a motion that the report be accepted and the Committee discharged carried unanimously.

The minutes only hint at the results of the investigation, and though the report was marked No. 34 and placed in the document file, we can't refer to it. Unfortunately for us, the contents of the document file cannot now be found.

Testimony was taken for an hour and a half, and then the meeting was adjourned until 2:00 p.m.

That afternoon session resulted in some of the most outrageous legislation ever heard of, and we wouldn't have heard of it except for echoes of the case arising 1,000 miles from Davenport. For the sake of continuity, I shall postpone explaining how the additional information came into my hands.

At the conclusion of the testimony, Carpenter moved ". . . that the charges preferred . . . by Drs. Barrow and Witherwax and referred to the Committee for investigation have been fully sustained by the evidence presented to the Society by the Committee." But then, after "much discussion," he withdrew the motion.

Baker then moved ". . . *that the recommendation of the Committee that said Langer be reinstated as a member of the S.C.M.S.* be adopted, and that said Langer be restored to full membership."

At this point, it appears that someone must have whispered vociferously in Baker's ear, for Fountain offered the following substitute motion, and Baker accepted it. A majority of the members present (composing less than two-thirds of the members usually in attendance) then voted "That the Society return its thanks to the Committee for its arduous duties so faithfully performed, and that the report be adopted *with reservation of their recommendation in reference to the suspended member.*"

One can only try to read between the lines. Document No. 34, the Investigators' Report, is missing. We don't know what may have been whispered in Baker's ear that caused his remarkable about-face. It appears, simply, that Langer was scheduled to be railroaded and that everyone but Baker had known it.

The secretary then formulated the Preamble and Resolution that I quoted in full at the start of this history.

Let us give some credit to his ruthless adversaries; Langer was given the floor for his defense before a vote was taken. In the balloting, eight members voted for Langer's expulsion, and three dissented—Maxwell, Saunders and Thistle, the three who had composed the Investigation Committee.

NOTORIETY

Secretary Adler then set about notifying societies and journals of Scott County's action, and it was for that purpose that the resolution was printed. The other members went back to their rounds of patients glowing with satisfaction at completing an unpleasant yet necessary task, unaware that the Scott County Medical Society was being dissected and revealed in its iniquity by distant observers.

At a meeting held on January 31, 1860, the Scott County Society "took note of two articles in the N.Y.J. of Medicine concerning external version of the fetus in which . . . [the author] made some reference to This Society." A committee of five was appointed to "peruse this article and draft a reply in such manner as seemed proper to the interests of the profession in general and of Scott County in particular."

My research has revealed that the NEW YORK JOURNAL OF MEDICINE contained little information, but the 1859-1860 volume of the NEW YORK MEDICAL PRESS, unindexed, was considerably more rewarding. Our notoriety begins with the editors' comment: "We are informed officially by J. M. Adler, Sec'y of the Scott Co. Med. Society of the expulsion from that body of Dr. Ignatius Langer." Thereafter, the alleged causes were recited without further comment.

In that same issue of the NEW YORK MEDICAL PRESS, Dr. Langer was accorded the privilege of defending himself, and this heretofore voiceless figure emerged as a loquacious one. He listed 20 authors alphabetically, and gave abstracts from the works of each of them. He said that he had been expelled to prevent his reporting to the American Medical Association on the subcutaneous injection of medicine in general and of quinine in particular.

In a later issue, intoxicated by his freedom of the press, Langer orated at such length that the reader is led almost to lose sight of the issue. However, that subsequent article is noteworthy in that it contains his personal account of the manipulations he performed on the pregnant woman whom his colleagues said he wronged:

"Mrs. C. E. Whisler, gravida IV, age 27, was due the last week in April. My first visit was in March. On April 20 she called that she was in labor. The abdomen was a peculiar shape, laterally lengthy; the cervix ½ inch long, one finger dilated; no presenting part felt. The head in the fossa iliaca sinistra. After manipulation, false labor subsided. Forty-two hours later, the same procedure was resorted to. Twenty-eight hours later, I was accosted by the husband: 'Please come. My wife is making a better show.' The occiput position achieved now stayed put until delivery 48 hours later, after a reasonably short labor."

According to Langer's account of the case, during that final 48 hours before delivery he requested consultation because he had a "mutilated finger" and doubted that he could conduct delivery by himself. The Whislers were unwilling to let him summon Fountain, Adler or Baker, so he sent for Dr. Gregg, of Rock Island. Gregg assessed the situation, and his failure to note anything abnormal about it probably constituted the basis for the scandal. Gregg must have thought and must have told his colleagues, "The scoundrel was dealing with an occiput presentation all along!"

Now hear the deposition of Catherine and Frank Whisler! When she had thought she was in labor, Mrs. Whisler says that Langer explained the situation, asked permission to correct it and was given consent. Then, she says, "I felt a change and observed a different shape of the abdomen and felt relief of false labor pains after this manipulation. You behaved properly and gentlemanly, and in consequence you left on our minds the most pleasant impression [of you] as a man and as a physician."

The editor of the NEW YORK MEDICAL PRESS then concluded: "This we think is a thorough refutation of the charges by the Scott County Society and places them in an unenviable light before the professional world."

ATTEMPT AT REBUTTAL

The Society took its side of the question to the PHILADELPHIA MEDICAL AND SURGICAL REPORTER, where its argument is to be found in the 1860 volume. Its defense was weakened by the lengthiness of the article in which it was presented, and it was made to appear that Langer's action had been objected to merely on the technical grounds that version was impossible before the onset of labor. In the opinion of the Society's spokesman, to use the works of European authors in the argument was to cast a slur on the ability of American physicians.

The Scott County Society presented as its only witness Dr. Gregg, and we shall hark to his colorful deposition. When Mr. Whisler brought Gregg to Langer's office, they found Langer with his right arm in a sling and his right index finger in a tin cup of cold water. At the Whisler home, Gregg saw Mrs. Whisler move from the kitchen into the bedroom. Therefore, being ambulant, she could not have been in labor! Langer went into the bedroom, and when he emerged four or five minutes later, he said he believed he had rectified the trouble.

On his examination, Gregg says he found "Not a hairsbreadth dilatation of the cervix (therefore no labor). No little outstretched arm silently yet forcibly pleading for exercise of obstetrical science. No little innocent shouldering his or her way into worldly life. Nothing, in fact, justifying the presence of an old woman, much less of counsel from the other side of the river!"

Gregg's veracity—or at least his ability to make a careful examination—was later challenged by those who had it from authorities that the multiparous cervix will always admit one finger.

The editor of the Philadelphia publication then took up cudgels against Langer and against his own opposite number in New York State: "Are we compelled to take in every proposition of the European professors without modification—swallow them whole—simply because they are foreign? The argument of the Scott County Medical Society is an able one and would have graced the pages of our excellent contemporary the NEW YORK MEDICAL PRESS, which should by all legitimate means encourage American talent and research."

From that point on, the altercation became repetitious, with only a few exceptions. Our predecessors' final blast was printed in the PHILADELPHIA JOURNAL: ". . . We cannot believe that even in Europe females are willing to submit to . . . [palpation and auscultation] which members of the Society think are not only useless as far as the diagnosis of position of fetus is concerned, but unnecessary, highly indelicate and open to the gravest objections on the score of morality." In response, the editor of the NEW YORK MEDICAL PRESS, a man named Kiernan, *congratulated* Langer on his expulsion, and opened his columns to Dr. H. B. Wilbur, of Syracuse, a neurologist who was head of the New York Asylum for Idiots and champion of reforms in the care of the mentally ill. Wilbur said, among other things, that he had before him copies of Langer's diplomas from Vienna University certifying him as physician, surgeon and obstetrician; a certificate of his connection with Vienna Lying In Hospital; and a certificate of his service as division surgeon in the Hungarian Army during the Revolution of 1848, citing him for courage, energy, skill and experience.

None of the participants in this melee ever found himself at a loss for words. Wilbur used about 8,000, and whenever Langer turned up, it was with 5,000 or 6,000.

EPILOGUE

Meanwhile, back in Iowa, the Scott County Medical Society felt the thrust of another goad while its hide was still quivering. Dr. Shelton inserted a card in the DAILY GAZETTE on behalf of his former

buddy, Langer, and at the April, 1860, meeting the Society set off after Shelton's scalp. It discovered, however, that Shelton wasn't waiting around for punishment, but had moved to another state and, moreover, had carried with him the Society's usual letter of blessing and praise.

Not so as regards Langer. The final mention of him in the minutes of the Society is a notation that the State Medical Society had endorsed Scott County's action regarding him, but he appears to have remained in Davenport for several more years. On April 26, 1864, in a letter dated at Davenport, he remonstrated with the editor of the CHICAGO MEDICAL EXAMINER for crediting a Bombay physician with having been first to administer quinine subcutaneously, and cited a paper that he had read at the AMA convention of 1859. The editor handsomely acknowledged his mistake.

Now the characters leave the stage. As the lights grow dim, we hear in the distance the fury of a terrible fight among raftsmen in Hartell's Saloon, at Second and Rock Island Streets.

What happened to Langer? No doubt he died, but we don't know when or where. The Scott County Medical Society took up the matter of vital-statistics registration immediately after it dropped Langer, but because the first of them were destroyed by fire, the earliest extant birth and death records start with 1883. These are open to inspection at the Court House, but Langer's name is not to be found in them. I have had no success in locating his grave in local cemeteries.

CONCLUSION

For his conceit, his boastfulness and his quarrelsome nature, it can be argued that Ignatius Langer got no more than he deserved. Yet there certainly is evidence that he was unjustly expelled.

Very likely each of us will be provided a well-marked grave and an obituary listing his accomplishments. But who of us, a hundred years from now, will have to our credit such a memorial as the Whislers gave to Dr. Langer: "You behaved properly and gentlemanly, and in consequence you left on our minds the most pleasant impression [of you] as a man and as a physician."

It was characteristic of the present day integrity of the Scott County Medical Society that immediately after hearing the Langer Case, on October 1, 1957, its members voted unanimously to reinstate Dr. Langer—98 years after his expulsion.

The treasurer was instructed to make every effort to collect back dues.

Plan to attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines
April 20-23

SOCIALIZED MEDICINE AND GOVERNOR FAUBUS

Since last fall, when the school-integration difficulties at Little Rock first hit the headlines, many of us have acquired a considerable admiration for one of the editors there. It appears that there are others no less brave.

The following is an editorial that appeared in the TEXARKANA GAZETTE on July 19, 1957:

"Governor Faubus vetoed part of a bill passed by the General Assembly's 1957 session which would have supplied $58,000 for the operation of the Arkansas Cancer Commission's tumor clinic program.

"The effect of this veto is twofold: it transfers control of hospitalization of indigent cancer patients from the individual doctors who have been running the clinics to the State Welfare Department, and it makes the state's seven tumor clinics eligible for Federal matching funds.

"The doctors oppose the veto principally on the ground that it is 'a step towards socialized medicine.'

"We think the doctors' points are well taken. This attempt of the Governor to take advantage of Uncle Sam's bounty is just one more link in the eternal chain of government expansion. It is nothing more or less than interference of the Government in affairs which are not its concern. The facts are that under the direction of the Arkansas Cancer Commission and the individual physicians who voluntarily gave their time to the treatment of indigent cancer patients, the tumor clinics have been operated efficiently and more economically. More important, they have been meeting the need for treatment of patients who cannot provide for themselves. . . .

"We see no reason to change a system which has worked admirably in the past, particularly when the change would result not only in inefficiency but in expansion of the Federal government's already swollen powers. . . .

"To [the Governor's supporters] we would simply reply, first, that the state has been able to take care of its own without any difficulty in the past and does not need to use Washington as a crutch; second, that the fact that Texas has succumbed to the lure of Federal aid is no reason Arkansas should make the same mistake; and third, that although there may have been no protests directly from any cancer clinic expect Texarkana's, the president of the Arkansas State Medical Society himself, representing all the doctors in the state, has strenuously objected to the Governor's plan.

"Let the supporters of this scheme come out and say that they are for socialized medicine if that is what they want. Because as surely as night follows day, if the trend of which Governor Faubus's veto is symptomatic is allowed to continue, socialized medicine is exactly what they, and we, are going to get."

Woman's Auxiliary News

OUR PRESIDENT SAYS—

My sincere thanks to so many of you for your Christmas messages! They added a great deal to my holiday joy. And I am sure you all received the attractive greeting from Jane King. Special credit goes to her for the excellent message on civil defense. I hope we shall all carry into the new year many of her thoughts and suggestions. Most inspirational to me were her words: "*Constant Devotion* and *Civil Defense* are synonymous." I shall also remember her challenge: "Grandma's pantry was ready for any emergency. Is yours?"

Don't forget that March 30 is to be Doctor's Day. You will remember that it was set aside to honor doctors in memory of Dr. Crawford Long, a Georgian who on March 30, 1842, first used ether inhalation to deaden the pain of the removal of a tumor from the neck of a friend of his. Previously, ether had been used only for dental procedures. Dr. Long continued to use it for minor operations, but neglected to report his work until 1849. Yet, he is still deserving of credit for initiating the technic of anesthesia, considered one of the ten greatest contributions to Medicine.

Since the relief of pain is one of the major purposes of Medicine and anesthesia best symbolizes it, March 30 has been selected as the day for giving special honor to all physicians. See that your husband is wearing a red carnation in his lapel on that occasion. You may wish to give it to him at home, or as some Auxiliaries have done, you may want to make arrangements to provide each doctor with one as he enters the hospital on that morning. The important thing, of course, is for you to show doctors that you remember and appreciate the work they are doing. In addition, the carnations will remind others of the gratitude they owe to the medical profession.

February is a short month. May its brevity serve to remind you that the end of our Auxiliary year is approaching fast. Projects not yet completed need your immediate attention so that you won't be faced with a disturbing last-minute rush that makes the work we do an effort, rather than a privilege!

—Sue Gerken

SAFETY FIRST!

A cat has nine lives—a pedestrian only one.

RECRUITMENT

If our national theme "Health Is a Joint Endeavor" is to be realized, we must encourage every doctor's wife to join the Woman's Auxiliary. Each doctor and his wife should be working as a team, and working as members of groups in county medical societies and county Auxiliaries, for the maintenance of Medicine's high standards and record of accomplishment.

Few county Auxiliaries to date have reached 100 per cent membership, but since numerous county medical societies have done so, that objective doesn't seem beyond reach. The first step toward it is simple and is really a very pleasant one. Each Auxiliary member needs merely to seek out and make the acquaintance of a doctor's wife who does not yet belong to the organization, and offer to take her to an Auxiliary meeting. Surely nothing can be pleasanter than learning to know other families in which Medicine is a principal interest.

If your county borders upon one that does not yet have an Auxiliary of its own, you have a special opportunity and indeed a responsibility to acquaint doctors' wives in your neighboring towns with the opportunities and satisfactions of Auxiliary membership. Thirty minutes of driving time surely can't be too much of a contribution for you to make for this purpose.

Each added member strengthens our entire organization and adds weight to the stands it takes on important issues of our day. Each added member brings with her new ideas and new enthusiasm for community service. In the last few years, the Woman's Auxiliary has shown very remarkable growth. Now, let's aim at 100 per cent membership of eligible doctors' wives!

AWARD FOR COMMUNITY HEALTH SERVICE

Has your Auxiliary selected its candidate for this year's award for outstanding voluntary community health service? Your choice should be someone who you feel deserves recognition for her interest either in health or in health education in Iowa. The recipient should be someone other than physician's wife, and the particular service for which she is honored should not have been a part of a job for which she is paid.

CHAPTER HISTORIES

The chairman of the History Committee, Mrs. Charles H. Flynn, a past-president of the State Auxiliary, has written to each organized Auxiliary in the state, asking for histories. According to her last report, six chapters had responded with very fine chronological accounts. Mrs. Flynn and the members of her Committee, Mrs. R. E. Hines and Mrs. Vorisek, are very anxious to complete the file.

CALLING ALL MEMBERS

Members-at-large, members of county Auxiliaries and treasurers of county Auxiliaries:

Your state treasurer is waiting for your membership dues, and they are payable now. Payment as soon after March 1 as possible will be appreciated.

County representation in the State Auxiliary and state representation in the National Auxiliary are based upon paid-up memberships as of March 15. Checks from chapter members should be sent to county Auxiliary treasurers; those from members-at-large should be sent direct to the state treasurer, Mrs. E. A. Vorisek, 6205 Woodland Avenue, Des Moines 12.

AMERICAN MEDICAL EDUCATION FOUNDATION

Now is the time for county Auxiliary presidents and members-at-large to send contributions to the American Medical Education Foundation. No time in the history of our beloved country has there been more urgency about helping our medical schools safeguard our medical standards and, in turn, our national health.

Please see that you send in at least one dollar per member. The aim for our State Auxiliary this year is a total contribution of $1,000. Send the money to Mrs. Lester R. Hegg, State AMEF Chairman, 2045 East Fifteenth, Rock Valley.

Mrs. Karl Ritter, the national chairman for this project, reports that last year the total of Auxiliary contributions to AMEF reached $113,540.56, with funds pouring in from *every* constituent Auxiliary. This year, $150,000 is the national goal that she hopes will be achieved or even exceeded.

COUNTY AUXILIARIES

Hamilton

The Hamilton County Medical Auxiliary members entertained their husbands at a turkey dinner on December 4, in the home of Dr. and Mrs. O. C. Buxton, Jr., at Webster City. Dr. and Mrs. Dean Cooper, of Fort Dodge, were guests.

Lee

Wives of doctors met at the Country Club in Fort Madison on December 4, to organize the Auxiliary to the Lee County Medical Society. Mrs. George McGinnis and Mrs. George McMillan were the organizational chairmen. There are 18 members.

Mrs. Frank Poepsel, of West Point, spoke of projects sponsored by the State Auxiliary, and plans were started for the observance of Doctor's Day.

Page

Following a joint dinner meeting with the doctors, the Woman's Auxiliary to the Page County Medical Society met on December 19 at the home of Mrs. Karl Catlin, in Clarinda. Mrs. H. S. Frenkel, of Clarinda, was installed as president of the group; Mrs. George Powers, of Shenandoah, was made president-elect; and Mrs. Charles Flynn, of Clarinda, was chosen as secretary-treasurer.

Polk

The Woman's Auxiliary to the Polk County Medical Society met for luncheon on January 10 at Hotel Commodore, in Des Moines. Mrs. Leo Pearlman presided at the short business meeting. Mrs. Alvin Kirsner, of the Iowa State Council for the Blind, gave a very interesting talk on the topic "Seeing Hands."

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. J. F. Gerken, Waterloo
President-Elect—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

STATE DEPARTMENT OF HEALTH



COMMISSIONER

TUBERCULOSIS FIELD PROGRAMS

At its July meeting, the State Board of Health voted to raise the minimum age of persons eligible for examination in county-wide x-ray programs to 18 years. Physicians in the county would retain the privilege of referring any younger individual for x-ray in such a program.

Following is statistical data on programs sponsored by the Division of Tuberculosis between July 1 and November 30, 1957.

CONTACT PROGRAMS

Number of programs	22
Number of 70 mm. films taken	—
Number of 14 x 17 films taken	1,982
X-ray Interpretations (Probable TB findings)	
Active	15
Inactive	65
Healed	354
Activity undetermined	33
Total	467
Number of healthy chests	1,157
Referred locally for 14 x 17 films	—
Non-TB findings (one or more each)	358
TB suspected	—
Primary complex	—

SPECIAL PROGRAMS

Number of programs	22*
70 mm. films taken	19,757
Number of healthy chests	19,330
Referred locally for 14 x 17 films	125
Non-TB findings (one or more per person)	276
TB suspects	22
Primary complex	4
14 x 17 films taken	285
X-ray Interpretations (Probable TB findings)	
Active	—
Inactive	4
Healed	9
Activity undetermined	1
Total	14
Number of healthy chests on basis of 14 x 17 films	271

SELECTED NON-TB FINDINGS
(Includes 70 mm. and 14 x 17 Films)

Abnormal heart size/contour	276
Abnormal aorta	110
Hilar node calcification	188
Pneumonitis	37
Increased bronchovascular markings	59
Emphysema	79
Other	115

* One county completed the school certification program as of November 30, 1957. Four counties completed Tuberculin Skin Testing programs during the same period.

INFECTIOUS TUBERCULOSIS

The feeling has been growing among Iowa's health officers that the regulations of the Department of Health which the State Board of Health approved on July 9, 1946, regarding the control of recalcitrant tuberculosis patients have been inadequate.

To enable health officers to enforce isolation of such individuals, the State Board of Health has rewritten the regulations as follows:

AMENDMENT TO RULES AND REGULATIONS

"Pursuant to authority vested in my office by Sections 139.2 and 139.6, Code 1954, the following amendments to rules and regulations of this department are hereby adopted:

"1. Section VIII, Isolation of Recalcitrant Tuberculosis Patients, which appears at pages 121 and

FOLLOW-UP ON POSSIBLE MALIGNANCIES FOUND IN CONTACT PROGRAM

(Interpretation of 14 x 17 Films, Supplemented by Reports From Staff Nurses Following Interviews With Physicians)

Number	*Type*	*Under Observation*	*Surgery Performed*	*Subsequent X-ray or Other Findings*	*Negative*	*Failed to Cooperate*
10	Coin Lesions	1	—	—	—	4
3	Mediastinal Mass	1	—	3	3	2
5	Neoplasm	1	—	2	1	—
3	Cancer of Lung and Other	2	1	—	—	—
21		5	1	5	4	6

122, 1954 I.D.R. is hereby rescinded and the following is adopted in lieu thereof:

"*Quarantine.* Any person ill with tuberculosis who neglects or refuses to obey the restrictions imposed by the State Department of Health or local health officers in matters relating to the protection of others from said disease shall be placed under isolation and quarantine in suitable quarters and shall not leave such quarters until danger of infection to others no longer exists.

"In all other cases of infectious tuberculosis the respective boards of health or health officers shall enforce isolation and quarantine to protect the health of others.

"A quarantine sign shall be posted at the entrance of the quarters or building where such patient is under isolation and quarantine.

"Quarantine sign shall be in the following form:

QUARANTINE

TUBERCULOSIS

EXISTS ON THESE PREMISES

Health Officer"

(Signed) Edmund G. Zimmerer, M.D.
State Commissioner of Public Health

This amendment has received the approval of the Iowa State Board of Health and the attorney general of Iowa.

MORBIDITY REPORT FOR MONTH OF DECEMBER

Disease	*1957 Dec.*	*1957 Nov.*	*1956 Dec.*	*Most Cases Reported From These Counties*
Diphtheria	3	3	1	Scott
Scarlet fever	144	198	66	Jefferson, Johnson, Polk
Typhoid fever	0	0	0	
Smallpox	0	0	0	
Measles	41	48	243	Polk
Whooping cough	11	8	13	Harrison, Dubuque
Brucellosis	3	11	11	One to a county
Chickenpox	374	276	502	Clay, Lyon, Polk, Story
Meningococcus meningitis	3	3	3	Polk
Mumps	292	231	181	Boone, Dubuque, Polk, Pottawattamie
Poliomyelitis	2	2	6	Dubuque, Pottawattamie
Infectious hepatitis	4	4	19	One to a county
Rabies in animals	8	14	28	One to a county
Malaria	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Tuberculosis	30	48	43	For the State
Syphilis	96	119	118	For the State
Gonorrhea	51	51	62	For the State
Histoplasmosis	0	0	1	
Food intoxication	0	0	0	
Meningitis (type unspecified)	0	0	1	
Diphtheria carrier	0	0	0	
Aseptic meningitis	0	0	0	
Salmonellosis	0	4	3	
Tetanus	0	0	0	
Chancroid	0	0	0	
Encephalitis (type unspecified)	0	1	1	
Influenzal meningitis	1	2	3	Page
Amebiasis	5	5	0	
Shigellosis	0	0	0	
Influenza	1,078	165,261	0	

POSTGRADATE CONFERENCE AT CREIGHTON

The Creighton University School of Medicine will present a postgraduate conference at Creighton Memorial-St. Joseph Hospital on April 8, 9 and 10.

The first day will be devoted to practical clinical hematology, with Dr. William Harrington, associate professor of medicine at Washington University, St. Louis, as guest speaker. The second day will be devoted to rehabilitation procedures, and the guest speaker will be Dr. Frederick J. Kottke, professor and chairman of the University of Minnesota's Department of Physical Medicine and Rehabilitation. On the third day, some new practical laboratory tests will be demonstrated at the Creighton School of Medicine.

Emphasis will be put upon demonstrations, and active participation of the registrants will be encouraged. The procedures will be of special interest to general practitioners. The number of registrants will be limited to 50 so that instruction can be offered to small groups.

Physicians who are interested in attending are asked to write to C. M. Wilhelmj, M.D., Creighton University School of Medicine, Omaha 2.

PATHOGENESIS AND MANAGEMENT OF EDEMA

At the University of Colorado's Medical Center in Denver, March 13-15, a postgraduate conference will be devoted to the basic considerations and clinical applications of kidney function, edema and diuresis. Comprehensive presentations will be made of the problems in pathogenesis and management of edema as they are variously encountered in clinical medicine. Special emphasis will be placed on treatment.

Five distinguished guest lecturers will participate, in addition to a number of members of the Colorado faculty. They are S. Howard Armstrong, Jr., M.D., professor of medicine at the University of Illinois; Russel R. deAlvarez, M.D., professor of obstetrics and gynecology at the University of Washington, Seattle; John H. Moyer, M.D., professor of medicine at Hahnemann Medical College; George C. Schreiner, M.D., assistant professor of medicine, Georgetown University; and Arnold V. Wolf, Ph.D., chief of the Renal Section, Department of Cardiorespiratory Disease, Walter Reed Army Medical Center.

Further information can be obtained from the Office of Postgraduate Medical Education, 4200 East Ninth Avenue, Denver 20. The registration fee will be $25.00.

IOWA STATE MEDICAL SOCIETY

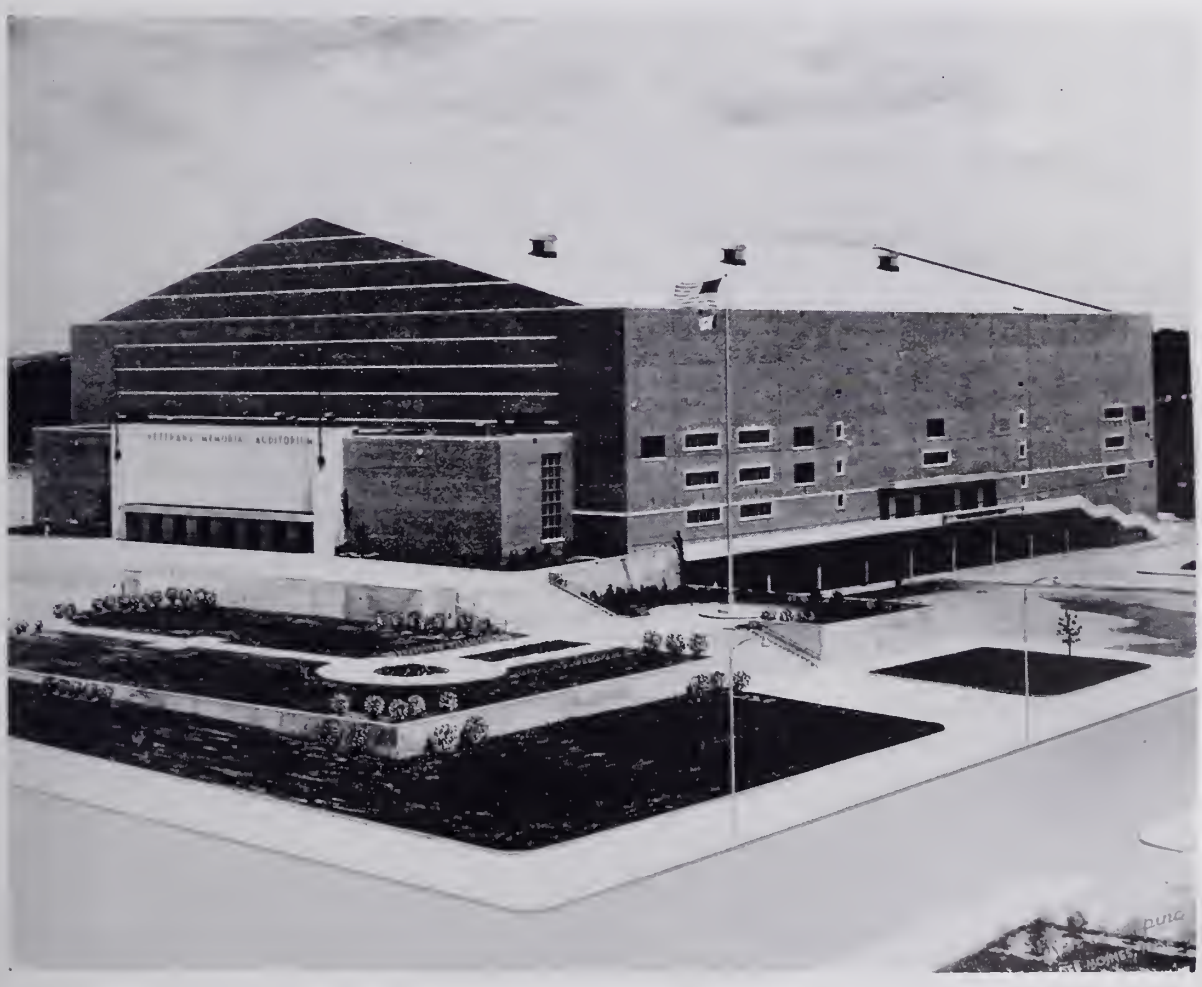
Organized in 1850

1958 ANNUAL MEETING

April 20—23

Veterans Memorial Auditorium

Des Moines



Veterans Memorial Auditorium



FRED STERNAGEL, M.D.

President
Iowa State Medical Society
1957-1958

General Sessions

General Sessions Room, Exhibit Hall

Monday Morning, April 21

8:00 Exhibits

9:00 Invocation
Reverend O. E. Cooley, D.D.
Address of Welcome
Allan B. Phillips, M.D., Des Moines, president of the Polk County Medical Society
Response
Rubin H. Flocks, M.D., Iowa City, vice-president of the Iowa State Medical Society

9:15 President's Address
Fred Sternagel, M.D., West Des Moines, president of the Iowa State Medical Society

9:30 The Burn Patient—Certain Concepts Guiding Treatment
William H. Frackelton, M.D., Milwaukee, Wisconsin

10:00 Application of Tissue Cultures in Diagnosis of Enterovirus Infection
Tom D. Y. Chin, M.D., Kansas City, Kansas

10:30 Recess to Visit Exhibits

11:00 Acute Respiratory Diseases
Joseph A. Bell, M.D., Bethesda, Maryland

11:20 Observations on Viral Keratoconjunctivitis
Phillips Thygeson, M.D., San Francisco, California

11:40 Discussion on Virology
Franklin H. Top, M.D., Iowa City, Iowa—Moderator
Joseph A. Bell, M.D., Bethesda, Maryland
Tom D. Y. Chin, M.D., Kansas City, Kansas
Phillips Thygeson, M.D., San Francisco, California

ISMS HEADQUARTERS HOTEL

HOTEL SAVERY
LOCUST AT FOURTH STREET

Tuesday Morning, April 22

8:00 Exhibits

9:00 The Risk to the Fetus in Cesarean Section
H. Close Hesseltine, M.D., Chicago, Illinois

9:30 Pre-operative Evaluation of Patients for Surgery and the Selection of Anesthesia
Vincent Collins, M.D., Tenafly, New Jersey

10:00 Head and Neck Cancer from the Standpoint of a Clinical Radiotherapist
(The Arthur Erskine Memorial Lecture)
Ralph M. Caulk, M.D., Washington, D. C.

10:30 Recess to Visit Exhibits

11:00 Respiratory Allergy and Superimposed Infections
J. Warrick Thomas, M.D., Richmond, Virginia

11:30 An American Philosophy of Financing Health Care
Mr. Edwin J. Faulkner, Lincoln, Nebraska

Wednesday Morning, April 23

8:30 Exhibits

9:30 Symposium—New Problems in Cancer

9:30 John B. Heller, M.D., Bethesda, Maryland —Public Health

9:40 Sprague H. Gardiner, M.D., Indianapolis, Indiana—Obstetrics and Gynecology

9:50 Samuel Dvoskin, M.D., New York City, New York—Internal Medicine

10:00 Danely P. Slaughter, M.D., Chicago, Illinois—Surgery

10:10 Ralph M. Caulk, M.D., Washington, D. C. —Radiology

10:20 Discussion

11:30 Report of the House of Delegates
President-Elect's Address
Walter D. Abbott, M.D., Des Moines, president-elect of the Iowa State Medical Society
Installation of President





Joseph A. Bell, M.D. (left), of Bethesda, Maryland, is chief of the Epidemiology Section, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health. Ralph M. Caulk, M.D. (center), of Washington, D. C., is senior attending radiologist and chairman of the Department of Radiology, Washington Hospital Center; consulting radiation therapist, U. S. Naval Hospital; and consulting radiation therapist at the Clinical Center of the National Institutes of Health. Tom D. Y. Chin, M.D. (right), of Kansas City, Kansas, is assistant chief, and chief of the Virus Unit, at the Kansas City Field Station of the U.S.P.H.S. Communicable Disease Center.





Vincent Collins, M.D. (left), New York City, is a member of the staff in the Department of Anesthesiology at the New York University-Bellevue Medical Center, and president of the New York State Society of Anesthesiologists. George Crile, Jr., M.D. (center), of Cleveland, is head of the Department of General Surgery at the Cleveland Clinic Foundation. Samuel Dvoskin, M.D. (right), of New York City, is an internist with the Pack Medical Group and an assistant in medicine at the Columbia University College of Physicians and Surgeons.

Section Meetings

MEDICAL SECTION

Irving J. Hanssmann, M.D., Council Bluffs
Chairman

South Meeting Room, Third Floor

Monday Afternoon, April 21

2:00 The Clinical Approach to Differentiation of Certain CNS Viral Infections
Tom D. Y. Chin, M.D., Kansas City, Kansas

2:30 Symposium—Cardiovascular Atherosclerosis

2:30 Is Coronary Atherosclerosis Preventable?
William L. Proudfit, M.D., Cleveland, Ohio

2:50 The Treatment of Atherosclerosis
Lewis E. January, M.D., Iowa City, Iowa

3:10 Recess to Visit Exhibits

3:40 Atherosclerosis of the Abdominal Aorta
Herman J. Smith, M.D., Des Moines, Iowa

4:00 Surgical Treatment of Atherosclerosis
Jerome P. Murphy, M.D., Omaha, Nebraska

4:20 Discussion by the Panel

Tuesday Afternoon, April 22

2:00 Medical Problems Involved in the Pre- and Postoperative Care of the Aged Patient Undergoing Surgery for Cancer
Samuel Dvoskin, M.D., New York City, New York

2:50 Recess to Visit Exhibits

3:20 Oral Therapy in Diabetes Mellitus
Robert C. Hardin, M.D., Iowa City, Iowa

3:40 Diuretic Therapeutic Agents
Charles M. Ryan, M.D., Sioux City, Iowa

4:00 General Discussion

ANNUAL BANQUET

Tuesday, April 22, 7:00 p.m.

Grand Ballroom, Savery Hotel
Program by
Miss Fran Allison
Radio-Television Star

SURGICAL SECTION

Julian M. Bruner, M.D., Des Moines
Chairman

General Sessions Room, Exhibit Hall

Monday Afternoon, April 21

2:00 Some Problems in the Treatment of Cancer
George Crile, Jr., M.D., Cleveland, Ohio

2:30 Salvaging the Injured Hand—Open Injuries
William H. Frackelton, M.D., Milwaukee, Wisconsin

3:00 Recess to Visit Exhibits

3:30 An Evaluation of the Present Status of Abdominoperineal Resection
Joseph A. Buckwalter, M.D., Iowa City, Iowa

3:50 The Vertebral Support Operation for Herniated Disc
Fred L. Knowles, M.D., Fort Dodge, Iowa

4:10 Children's Fractures
Kenneth M. Keane, M.D., Sioux City, Iowa

4:20 Arteriosclerosis Obliterans of the Lower Extremity
Donald J. Lulu, M.D., Des Moines, Iowa

Tuesday Afternoon, April 22

2:00 The Diagnosis of Accessible Cancer
Danely P. Slaughter, M.D., Chicago, Illinois

2:30 Clinical Experience With Fluothane—A New Anesthetic Agent
Charles B. Pittinger, M.D., Iowa City, Iowa

2:50 Recess to Visit Exhibits

3:20 Experience With 200 Bronchogenic Carcinomas
Samuel H. Walker, M.D., Iowa City, Iowa

3:40 Congenital Diaphragmatic Hernias
Ralph A. Dorner, M.D., Des Moines, Iowa

4:00 Parathyroid Adenoma
John R. Scheibe, M.D., and Richard Schoonover, M.D., Bloomfield, Iowa

4:20 Acute Cholecystitis—An Evaluation of Cholecystectomies Performed During the Post-optimal Period
John K. MacGregor, M.D., Mason City, Iowa



Mr. Edwin J. Faulkner (left), of Lincoln, is president and director of the Woodmen Accident and Life Company and the Woodmen Central Life Insurance Company, and is chairman of the Medical Relations Committee of the Health Insurance Council. William J. Frackelton, M.D. (center), of Milwaukee, is an associate professor of clinical surgery at the Marquette University School of Medicine. Sprague H. Gardiner, M.D. (right), of Indianapolis, is a professor of obstetrics and gynecology at the Indiana University School of Medicine.



John B. Heller, M.D. (left), of Bethesda, Maryland, is director of the National Cancer Institute, National Institutes of Health, U. S. Public Health Service, Department of Health, Education and Welfare, and assistant surgeon general of U.S.P.H.S. H. Close Hesseltine, M.D. (center), is professor and secretary of the Department of Obstetrics and Gynecology of the University of Chicago College of Medicine, and attending obstetrician and gynecologist at the Lying-In Hospital. Max Miller, M.D. (right), of Cleveland, is an associate professor of medicine at the Western Reserve College of Medicine, and president of the Cleveland Diabetes Association.

Section Meetings (Continued)

EYE SECTION

ARTHUR C. WISE, M.D., Iowa City
Chairman

Room B, Third Floor

Monday Afternoon, April 21

2:00 Ocular Infections due to Viruses
PHILLIPS THYGESON, M.D., San Francisco, California
2:30 Discussion
2:50 Recess to Visit Exhibits
3:20 Problems of Anisometropia and Antimetropia
HARRY W. ALCORN, M.D., Mason City, Iowa
3:50 Ocular Complications in Prematurity
ARTHUR H. DOWNING, M.D., Des Moines, Iowa
4:20 Photography in the Ophthalmologist's Office
FREDERICK FUERSTE, JR., M.D., Dubuque, Iowa

EAR, NOSE AND THROAT SECTION

VICTOR K. NAKASHIMA, M.D., Dubuque
Chairman

Room B, Third Floor

Tuesday Afternoon, April 22

2:00 Allergic Rhinitis
J. WARRICK THOMAS, M.D., Richmond, Virginia
2:30 Surgical Approaches in Radical Oral Surgery
EUGENE L. GRANDON, M.D., AND EDGAR S. BRINTNALL, M.D., Iowa City, Iowa
3:00 Recess to Visit Exhibits
3:30 Cerebrospinal Rhinorrhea From a Temporal Bone Defect
THOMAS R. UPDEGRAFF, M.D., Waterloo, Iowa
3:50 Rhinoplastic Experiences
CHESTER C. WOODBURN, JR., M.D., Des Moines, Iowa
4:15 Film: Laryngectomy and Radical Neck Dissection
GONZALO OBREGON, M.D., Iowa City, Iowa

PEDIATRIC SECTION

MARYELDA ROCKWELL, M.D., Clinton
Chairman

Room C, Third Floor

Monday Afternoon, April 21

2:00 Microbial and Illness Experiences of an Institutionalized Nursery Group of Very Young Children
JOSEPH A. BELL, M.D., Bethesda, Maryland
2:50 Recess to Visit Exhibits
3:20 The Changing Character of Infections
FRANKLIN H. TOP, M.D., Iowa City, Iowa
4:00 Winning Paper from the Pediatrics Essay Contest
4:20 Business Meeting

GENERAL PRACTICE SECTION

WILLIAM M. SPROUL, M.D., Des Moines
Chairman

Room C, Third Floor

Tuesday Afternoon, April 22

2:00 What's New in Cancer?
JOHN B. HELLER, M.D., Bethesda, Maryland
2:50 Recess to Visit Exhibits
3:20 Relaxin—Its Use in Obstetrics
RAYMOND O. SWANN, M.D., Iowa City, Iowa
3:40 The Present Status of the Use of Oral Hypoglycemic Compounds in the Treatment of Diabetes
MAX MILLER, M.D., Cleveland, Ohio
4:30 General Discussion

MEDICAL ECONOMICS SECTION

NOBLE W. IRVING, JR., M.D., Des Moines
Chairman

North Meeting Room, Third Floor

Monday Afternoon, April 21

2:00 Today's Problems and Opportunities in Voluntary Health Insurance
MR. EDWIN J. FAULKNER, Lincoln, Nebraska
2:45 Recess to Visit Exhibits
3:15 A Newsman Examines Doctors
MR. JACK SHELLEY, Des Moines, Iowa
3:45 Trends in the Malpractice Field
MR. PAUL F. AHLERS, Des Moines, Iowa
4:15 Why Not Enjoy Managing Your Practice?
MR. MILLARD K. MILLS, Waterloo, Iowa

OBSTETRICS AND GYNECOLOGY SECTION

CECIL W. SEIBERT, M.D., Waterloo
Chairman

North Meeting Room, Third Floor

Tuesday Afternoon, April 22

2:00 The Pitfalls in the Management of Breech Delivery
SPRAGUE H. GARDINER, M.D., Indianapolis, Indiana
2:30 Cervical Disease: Diagnosis—Management and Role of Major Surgery
H. CLOSE HESSELTINE, M.D., Chicago, Illinois
3:00 Recess to Visit Exhibits
3:30 SYMPOSIUM—OBSTETRIC HEMORRHAGE
CECIL W. SEIBERT, M.D., Waterloo, Iowa—Moderator
SPRAGUE H. GARDINER, M.D., Indianapolis, Indiana
H. CLOSE HESSELTINE, M.D., Chicago, Illinois
MADELENE C. DONNELLY, M.D., Des Moines, Iowa
WALTER C. FRIDAY, M.D., Des Moines, Iowa
JOHN H. RANDALL, M.D., Iowa City, Iowa





Jerome P. Murphy, M.D. (left), of Omaha, is an instructor in surgery and head of the Cardiopulmonary Laboratory at Creighton University. William L. Proudfit, M.D. (center), of Cleveland, is head of the Department of Electrocardiography and staff physician in the Cardiology Section of the Cleveland Clinic Foundation. Danely P. Slaughter, M.D. (right), of Chicago, is an associate professor of surgery at the University of Illinois Medical School, director of the Tumor Clinic at the Research and Educational Hospital, University of Illinois Medical School and St. Francis Hospital, Evanston, and chairman of the Cancer Committee of the American College of Surgeons.




J. Warrick Thomas, M.D. (left), of Richmond, is an assistant professor of clinical medicine at the Medical College of Virginia and director of the Thomas Clinic. Phillips Thygeson, M.D. (right), of San Francisco, is clinical professor of ophthalmology at the University of California School of Medicine.

ALLERGY SECTION

Lawrence J. Halpin, M.D., Cedar Rapids
Chairman

Room A, Third Floor

Monday Afternoon, April 21

2:00 Dermatologic Management of Allergic Dermatoses
Robert G. Carney, M.D., Iowa City, Iowa
2:20 The Management of Bronchial Asthma
J. Warrick Thomas, M.D., Richmond, Virginia
3:00 Recess to Visit Exhibits
3:30 Prevention and Treatment of the Immediate Penicillin Reaction
Joel D. Teigland, M.D., Des Moines
3:50 Panel Discussion
Lawrence J. Halpin, M.D., Cedar Rapids, Iowa
—Moderator
J. Warrick Thomas, M.D., Richmond, Virginia
Julia Cole, M.D., Ames, Iowa
Paul M. Seebohm, M.D., Iowa City, Iowa
Joel D. Teigland, M.D., Des Moines, Iowa
(Questions for discussion should be presented to the Section Chairman any time before or during this session.)

ANESTHESIOLOGY SECTION

Thomas A. Bond, M.D., Des Moines
Chairman

Room A, Third Floor

Tuesday Afternoon, April 22

2:00 Management of Patients With Cardiac Disease
Vincent Collins, M.D., Tenafly, New Jersey
Discussion
3:00 Recess to Visit Exhibits
3:30 Business Meeting—Election of Officers

Special Meetings, Luncheons and Dinners

Sunday, April 20

STATE SOCIETY OF IOWA MEDICAL WOMEN
and
AMERICAN MEDICAL WOMEN'S ASSOCIATION, BRANCH 19

The annual meeting of the State Society of Iowa Medical Women and American Medical Women's Association, Branch 19, will be held at the home of Doctor Jean B. Glissman, 1068 Forty-second Street, Des Moines, Iowa, at 7:30 p.m. on Sunday, April 20, 1958. All women who are members of or eligible for membership in the Iowa State Medical Society are urged to make plans to attend this meeting.

GOLF TOURNAMENT

The annual golf tournament will be held in Des Moines Sunday, April 20, at the Wakonda Club. Physicians may play at any time during the day, but the majority will start at 1:00 p.m. Dinner and awarding of prizes will follow. Reservations should be made with Dr. Harold J. McCoy, 212 Bankers Trust Building, Des Moines 9, Iowa.

Monday, April 21

PAST PRESIDENTS' LUNCHEON

12:15 p.m.
Parlor D—Hotel Savery

PRECEPTORS' LUNCHEON

12:15 p.m.
Des Moines Room—Hotel Savery
Reservations: Mr. W. R. Quinn
529 36th Street, Des Moines 12

IOWA NEUROPSYCHIATRIC SOCIETY

Luncheon—12:15 p.m.
Iowa Room—Hotel Savery
Reservations: Ada R. Perel, M.D.
939 Insurance Exchange Bldg., Des Moines 9
For program that will follow, see page xxxviii.

IOWA SOCIETY OF INDUSTRIAL & OCCUPATIONAL MEDICINE & SURGERY

Luncheon—12:15 p.m.
West Room—Hotel Savery
Reservations: C. Harlan Johnston, M.D.
4820 Grand Avenue, Des Moines 12
For program that will follow, see page 171.

IOWA ASSOCIATION OF PATHOLOGISTS

Luncheon—12:15 p.m.
Parlors A & B—Hotel Savery
Business Meeting Following Lunch
Reservations: Wallace Rindskopf, M.D.
Iowa Lutheran Hospital, Des Moines 16

BLUE SHIELD PARTICIPATING PHYSICIANS

Blue Shield Forum—South Room, Auditorium—
5:00 p.m.

IOWA DERMATOLOGICAL SOCIETY

Dinner—6:30 p.m.
Pioneer Room—Des Moines Club
Reservations: Robert G. Carney, M.D.
University Hospitals, Iowa City

IOWA ORTHOPEDIC SOCIETY

Dinner—6:30 p.m.
Colonial Room—Des Moines Club
Reservations: William A. Baird, M.D.
313 Fifth Street, Ames

IOWA ASSOCIATION OF PATHOLOGISTS
and
IOWA SOCIETY OF MEDICAL TECHNOLOGISTS

Dinner—6:30 p.m.
Hermitage Room—Des Moines Club
Address by Frank K. Ramsey, D.V.M.
Professor and Head, Dept. of Veterinary Pathology
Iowa State College, Ames
Reservations: Wallace Rindskopf, M.D.
Iowa Lutheran Hospital, Des Moines 16

Medical Economics Section





The Medical Economics Section will feature discussions on health insurance, malpractice, public relations and office management. The participants, along with Mr. Edwin J. Faulkner, are Mr. Paul F. Ahlers (left), Des Moines, an attorney in the firm of Bannister, Carpenter, Ahlers, and Cooney, and member of the Order of Coif, the International Association of Insurance Counsel, and the American College of Trial Lawyers; Mr. Millard K. Mills (center), Waterloo, the general manager of Professional Management Midwest and a member of the Board of Directors, Society of Professional Business Consultants; and Mr. Jack Shelley (right), Des Moines, news manager of stations WHO and WHO-TV, and president of the Iowa Radio-Television News Association.

BANQUET SPEAKER



Miss Fran Allison
Chicago, Illinois

Miss Allison, a native Iowan and a well-known radio and television star, will entertain guests at the Annual Banquet. As the Aunt Fanny of the "Don McNeill Breakfast Club," and Fran of "Kukla, Fran, and Ollie," she has endeared herself to millions of radio and television listeners.

FOR CORRECTION
SEE

IOWA PEDIATRIC SOCIETY

Lounge & Library—Des Moines Club
Social Hour—6:30 p.m.
Dinner—7:30 p.m.
Reservations: Ralph E. Dyson, M.D.
3200 University, Des Moines 11

IOWA RADIOLOGICAL SOCIETY

Social Hour & Dinner—6:30 p.m.
Wedgewood Room—Hotel Fort Des Moines
Address by Ralph M. Caulk, M.D.
Washington, D. C.
Reservations: James T. McMillan, M.D.
1105 Bankers Trust Bldg., Des Moines 9

IOWA ACADEMY OF SURGEONS

Business Meeting—North Dressing Room, Auditorium —5:00 p.m.
Social Hour & Dinner—Wakonda Club—6:30 p.m.
Address by George Crile, Jr., M. D., Cleveland, Ohio
Reservations: R. B. Stickler, M.D.
620 Equitable Building, Des Moines 9

SPRING DANCE

Grand Ballroom—Hotel Savery—9:00 p.m.
Don Hoy and His Orchestra
Sponsored by the Woman's Auxiliary for the Benefit of Its Nurses' Loan Fund and American Medical Education Foundation
Reservations: Mrs. N. W. Irving, Jr.
4916 Harwood Drive, Des Moines 12

Tuesday, April 22

LEGISLATIVE CONTACT MEN

Breakfast—7:30 a.m.
Iowa Room—Hotel Savery

IOWA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

Breakfast—7:30 a.m.
West Room—Hotel Savery
Reservations: Arthur H. Downing, M.D.
616 Bankers Trust Bldg., Des Moines 9

IOWA SOCIETY OF ANESTHESIOLOGISTS

Luncheon—12:00 Noon
Parlors A & B—Hotel Savery
Dinner—6:30 p.m.
Colonial Room—Des Moines Club
Reservations: Thomas A. Bond, M.D.
707A Equitable Bldg., Des Moines 9

IOWA ACADEMY OF GENERAL PRACTICE

Luncheon—12:15 p.m.
Iowa Room—Hotel Savery
Reservations: Mrs. Isabelle Wandling
911 Bankers Trust Bldg., Des Moines 9

IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY

Luncheon—12:15 p.m.
Grand Ballroom—Hotel Savery
Reservations: W. B. Goddard, M.D.
University Hospitals, Iowa City

IOWA RADIOLOGICAL SOCIETY

Annual Business Meeting—Room D, Auditorium—1:30 p.m.

ANNUAL BANQUET

Grand Ballroom—Hotel Savery—7:00 p.m.
Program by Fran Allison
Radio and Television Star

Scientific Exhibits

State University of Iowa College of Medicine

Serum Sodium Concentration—How Should It Influence the Fluid Order?—Edward E. Mason, M.D., Department of Surgery

Ulcerative Colitis, Remote and Local Manifestation —James A. Cliffton, M.D., and George H. M. Thornton, M.D., Department of Medicine; Robert C. Hickey, M.D., and Robert T. Tidrick, M.D., Department of Surgery

Tympanoplasty—Preservation of Hearing in Chronic Otitis Media—Gonzalo Obregon, M.D., Department of Otolaryngology

Management of Thyro-Toxicosis—Results of Radioactive Iodine Therapy—Robert E. Hodges, M.D., Department of Medicine

Diagnostic Aids—Rheumatoid Arthritis—William D. Paul, M.D., Department of Physical Medicine and Rehabilitation

College of Medicine Administration—Miss Alice White, College of Medicine

Veterans Administration Hospital, Iowa City

Quantitative Electro Diagnosis—The Strength Duration Curve—David M. Paul, M.D., William D. Jahnke, M.S., and Wayne V. Paustian, B.S., Department of Physical Medicine and Rehabilitation

Operative Steps in Stapes Mobilization and Techniques of Temporal Bone Histopathology—Eugene L. Grandon, M.D., Department of Otolaryngology

Uses and Abuses of Blood Transfusions—Richard E. Peterson, M.D., Radioisotopes Service, Hammond P. Chen, M.D., Laboratory Service, and Richard L. Lawton, M.D., Surgical Service

Veterans Administration Hospital, Des Moines

Upper Dorsal Sympathectomy: A New Surgical Approach—Louis T. Palumbo, M.D., Surgical Service

Clean Surgical Wounds: A Study of Methods to Simplify Surgical Care—L. T. Palumbo, M.D., A. N.

The House of Delegates

Open to all members

SPEAKER



Charles V. Edwards, M.D.

First Meeting—Sunday April 20, 1:00 p.m.

South Room, Veterans Memorial Auditorium

Roll Call
Approval of the Minutes of the Meeting Held on May 1, 1957
Reports of Officers
Reports of Committee Chairmen
Memorials and Communications
New Business
Election of Committee on Nominations

Second Meeting—Wednesday April 23, 7:30 a.m.

South Room, Veterans Memorial Auditorium

Roll Call
Reading of Minutes
Report of Committee on Nominations
Election of Officers
Reports of Committees
Unfinished Business
New Business
Announcement of Committees
Adjournment

CHAIRMEN OF SECTION MEETINGS



From left to right, top row: Thomas A. Bond, M.D., Des Moines, Anesthesiology Section; Julian M. Bruner, M.D., Des Moines, Surgical Section; Lawrence J. Halpin, M.D., Cedar Rapids, Allergy Section; Irving J. Hanssmann, M.D., Council Bluffs, Medical Section; Noble W. Irving, Jr., M.D., Des Moines, Medical Economics Section.

Bottom row: Victor K. Nakashima, M.D., Dubuque, Ear, Nose and Throat Section; Maryelda Rockwell, M.D., Clinton, Pediatrics Section; Cecil W. Seibert, M.D., Waterloo, Obstetrics and Gynecology Section; William M. Sproul, M.D., Des Moines, General Practice Section; Arthur C. Wise, M.D., Iowa City, Eye Section.

Smith, M.D., D. J. Lulu, M.D., H. L. Skinner, Jr., M.D., and M. A. Claman, M.D., Surgical Service

General

Psittacosis-Ornithosis—Iowa State Department of Health, Division of Preventable Diseases
State of Iowa, Division of Vocational Rehabilitation—Iowa Department of Public Instruction
Early Detection of Eye Trouble Among Children—National Society for the Prevention of Blindness
Endocardial Fibroelastosis—Raymond Blank Guild Heart Station: J. E. Gustafson, M.D., J. W. Green, M.D., J. T. McMillan, M.D., and Edward Duffie, M.D., Des Moines
Erythroblastosis Fetalis—Raymond Blank Memorial Hospital for Children
Doctor's Aid for Successful Bacteriology—Iowa Society of Medical Technologists
Exhibit by American Society of X-Ray Technicians
Exhibit by Iowa Chapter of the American Academy of General Practice
Audio-Visual Aids for Physicians—Iowa Heart Association
Adoption—Iowa Children's Home Society
Exhibit by Iowa Commission for the Blind
Exhibit by Iowa State Department of Health
Better Speech and Better Hearing—Des Moines Hearing and Speech Center
Crippled Children and Adults—Polk County Society for Crippled Children and Adults, Inc.
Epidemiology of Influenza in Polk County, 1957—Des Moines-Polk County Health Department
The Physician's Role as a Medical Officer in the Iowa National Guard—John R. Hyde, M.D., Iowa City
Time to Test—Iowa Trudeau Society
Polio Vaccination—Now Is the Time—National Foundation for Infantile Paralysis
Exhibit by Iowa Pharmaceutical Association
Myasthenia Gravis—Iowa Chapter, Myasthenia Gravis Foundation, Inc.

Technical Exhibitors

Abbott Laboratories, North Chicago, Illinois.
A. S. Aloe Company, St. Louis, Missouri.
Ames Company, Inc., Elkhart, Indiana.
Baker Laboratories, Inc., Cleveland, Ohio.
Benson Optical Company, Ames, Iowa.
The Borden Company, New York, New York.
Blue Cross-Blue Shield Plans, Des Moines-Sioux City.
Carnation Company, Los Angeles, California.
Central Pharmacal Company, Seymour, Indiana.
CIBA Pharmaceutical Products Inc., Summit, New Jersey.
Cusack-Harmon Company (formerly Gaynor-Bagstad), Sioux City, Iowa.
Dictaphone Corporation, New York, New York.
Doho Chemical Corporation, New York, New York.
R. E. Dwight & Company, Des Moines, Iowa.
Eastman Kodak Stores, Inc., Des Moines, Iowa.
Eaton Laboratories, Norwich, New York.
Encyclopaedia Britannica, Inc., Chicago, Illinois.
C. B. Fleet Company, Inc., Lynchburg, Virginia.
Foot-So-Port Shoe Company, Oconomowoc, Wisconsin.
Geigy Pharmaceuticals, Yonkers, New York.
General Electric Company, X-Ray Department, Des Moines, Iowa.
High Fidelity Sales, Inc., Des Moines, Iowa.
Holland-Rantos Company, Inc., New York, New York.
Holmes, Prouty, Murphy & May, Des Moines, Iowa.
Kremers-Urban Company, Milwaukee, Wisconsin.
Lederle Laboratories Division, American Cyanamid Company, Pearl River, New York.
Eli Lilly & Company, Indianapolis, Indiana.
J. B. Lippincott Company, Philadelphia, Pennsylvania.
P. Lorillard Company, New York, New York.
S. E. Massengill Company, Bristol, Tennessee.
Mead Johnson & Company, Evansville, Indiana.
Medco Products Company, Tulsa, Oklahoma.
Medical Protective Company, Fort Wayne, Indiana.
Merrill Lynch, Pierce, Fenner & Smith, Des Moines, Iowa.
Milex Products, Peoria, Illinois.
V. Mueller & Company, Chicago, Illinois.
National Dairy Council—Iowa Program, Des Moines, Iowa.
National Drug Company, Philadelphia, Pennsylvania.
Office Buildings, Inc., Madison, Wisconsin.
Parke, Davis & Company, Detroit, Michigan.
Pet Milk Company, St. Louis, Missouri.
Pfizer Laboratories, Brooklyn, New York.
Physicians & Hospitals Supply Company, Minneapolis, Minnesota.
Picker X-Ray, Midwest, Inc., Sioux City, Iowa.
Professional Management Midwest, Waterloo, Iowa.
A. H. Robins Company, Inc., Richmond, Virginia.
J. B. Roerig & Company, New York, New York.
William H. Rorer, Inc., Philadelphia, Pennsylvania.
Ross Laboratories, Columbus, Ohio.
Sanborn Company, Waltham, Massachusetts.
W. B. Saunders Company, Philadelphia, Pennsylvania.
Schering Corporation, Bloomfield, New Jersey.
Scientific Products, Evanston, Illinois.
G. D. Searle & Company, Chicago, Illinois.
Security Laboratories, Burlington, Iowa.
Smith, Kline & French Laboratories, Philadelphia, Pennsylvania.
E. R. Squibb & Sons, New York, New York.
Standard Medical & Surgical Company, Des Moines, Iowa.
Stuart Company, Chicago, Illinois.
Thermo-Fax Dealers of Iowa, Des Moines, Iowa.
Ulmer Pharmacal Company, Minneapolis, Minnesota.
Upjohn Company, Kalamazoo, Michigan.
Whylie-Farrell, Inc., Des Moines, Iowa.
Williams Surgical Supply Company, Iowa City, Iowa.
The Winkley Company, Des Moines, Iowa.
Yorktown Products Corporation, New York, New York.

Coming Meetings

In State

Mar. 1	**Second Annual Conference, Raymond Blank Memorial Hospital Association.** Blank Hospital for Children, Des Moines
Mar. 3-4	**Postgraduate Course in Psychology.** S.U.I., Iowa City
Mar. 18-19	**Anesthesia.** S.U.I., Iowa City
Mar. 27-29	**Sectional Meeting, American College of Surgeons.** Hotel Fort Des Moines, Des Moines
Apr. 9-11	**Annual Meeting, Iowa Public Health Association and Iowa Trudeau Society.** Hotel Savery, Des Moines
April 20-23	**Annual Meeting Iowa State Medical Society.** Veterans' Memorial Auditorium, Des Moines

Out of State

Mar. 2-12	**Mediclinics of Minnesota.** Ft. Lauderdale, Florida
Mar. 3-4	**Ophthalmology.** Ohio State University, Columbus
Mar. 3-4	**Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Mar. 3-5	**Audiology.** N.Y.U., N.Y.C.
Mar. 3-5	**Basic Electrocardiography.** Indiana University, Indianapolis
Mar. 3-5	**Sixth Postgraduate Conference in Medicine & Surgery (U. of Texas).** Temple, Texas
Mar. 3-5	**Pediatrics for GP's.** U. of Minnesota Center for Continuation Study, Minneapolis
Mar. 3-6	**Sectional Meeting, American College of Surgeons.** Waldorf-Astoria Hotel, N.Y.C.
Mar. 3-6	**New Orleans Graduate Medical Assembly.** Roosevelt Hotel, New Orleans
Mar. 3-7	**Course for GP's. (U. of California).** Mt. Zion Hospital, San Francisco
Mar. 3-7	**Eleventh Annual Postgraduate Course on Diseases of the Chest.** Warwick Hotel, Philadelphia
Mar. 3-7	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Mar. 3-7	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 3-8	**Motor Anomalies of the Eye (Part I), for Specialists.** N.Y.U., N.Y.C.
Mar. 3-14	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 3-14	**Radiology of the Gastrointestinal Tract (Columbia U).** Mt. Sinai Hospital, N.Y.C.
Mar. 3-21	**Cerebral Palsy.** Columbia-Presbyterian Med. Center, N.Y.C.
Mar. 3-28	**Endaural Otologic Surgery.** Northwestern University, Chicago
Mar. 4-7	**Chicago Medical Society Annual Clinical Conference.** Palmer House, Chicago
Mar. 5	**Arthritis & Rheumatism.** U. of California at Los Angeles.
Mar. 5-6	**Blood Dyscrasias (Michigan AGP).** Sheraton-Cadillac Hotel, Detroit
Mar. 5-6	**Obstetrics.** U. of Buffalo School of Medicine, Buffalo
Mar. 6-7	**Annual Spring Meeting, Massachusetts Society of Anesthesiologists.** Children's Medical Center and New England Medical Center, Boston
Mar. 6-8	**Neuro-otolaryngology.** N.Y.U., N.Y.C.
Mar. 6-8	**American Orthopsychiatric Association.** Hotels Commodore & Roosevelt, New York City
Mar. 6-8	**National Conference on Rural Health.** Hotel Heidelberg, Jackson, Mississippi
Mar. 9	**E.N.T. Problems and Allergic Respiratory Disease (U. of Cincinnati).** General Hospital, Cincinnati
Mar. 9-14	**International Congress, International College of Surgeons.** Ambassador Hotel, Los Angeles
Mar. 10-11	**American Society of Facial Plastic Surgery.** Ohio State University, Columbus
Mar. 10-12	**Pediatrics.** U. of Kansas Medical Center, Kansas City, Kans.
Mar. 10-13	**Southeastern Surgical Congress.** Lord Baltimore Hotel, Baltimore
Mar. 10-14	**Bedside Cardiology.** U. of California, San Francisco
Mar. 10-14	**Motor Anomalies of the Eye (Part II), for Specialists.** N.Y.U., N.Y.C.
Mar. 10-21	**Laboratory Methods in the Diagnosis of Enteric Bacterial Diseases.** U.S.P.H.S. Communicable Disease Center, Chamblee, Ga.
Mar. 10-21	**Serologic Diagnosis of Parasitic & Mycotic Infections.** U.S.P.H.S. Communicable Disease Center, Chamblee, Ga.
Mar. 11	**National Multiple Sclerosis Society.** New York City
Mar. 11-12	**Annual Lecture Series, Southwestern Pediatric Society.** Statler Hotel, Los Angeles
Mar. 11-13	**Dermatologic Principles for GP's.** University of Wisconsin, Madison
Mar. 12	**Diseases of the Skin.** U. of Nebraska Coll. of Medicine, Omaha
Mar. 12-14	**National Society for Prevention of Blindness.** Bellevue-Stratford Hotel, Philadelphia
Mar. 13-15	**Pathogenesis and Management of Edema.** U. of Colorado Medical Center, Denver
Mar. 14-15	**Fourth Annual Surgery, Radiology and Pathology Symposium.** U. of Oklahoma, Oklahoma City
Mar. 14-15	**Symposium on Connective Tissue (Collagen) Diseases.** U.C.L.A., Los Angeles
Mar. 14-16	**Office Orthopedics for GP's.** (U. of Southern California). Hotel Statler, Los Angeles
Mar. 14-16	**Fractures & Dislocations.** Brooke Army Med. Center, Ft. Sam Houston, Texas
Mar. 15	**North Pacific Society of Internal Medicine.** Spokane
Mar. 17-18	**Cardiac Auscultation.** U. of Kansas Med. Center, Kansas City, Kans.
Mar. 17-19	**Sectional Meeting, American College of Surgeons.** Hotel Utah, Salt Lake City
Mar. 17-19	**Internal Medicine for Internists.** U. of Minnesota Center for Continuation Study, Minneapolis
Mar. 17-21	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 17-21	**Electrocardiography.** N.Y.U., N.Y.C.
Mar. 17-21	**Ophthalmic Pathology.** Walter Reed Army Medical Center, Washington, D. C.
Mar. 17-22	**Surgery of the Hand.** N.Y.U., N.Y.C.
Mar. 17-25	**Radiology of the Chest (Columbia U.),** Mt. Sinai Hospital, N.Y.C.
Mar. 17-28	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Mar. 19	**Clinical Approach to Diseases of the Blood.** U. of California at Los Angeles
Mar. 19-20	**Orthopedics.** Indiana University, Indianapolis
Mar. 19-21	**Fluid & Electrolyte Balance.** U. of Tennessee, Memphis
Mar. 19-21	**Michigan Clinical Institute.** Sheraton-Cadillac Hotel, Detroit
Mar. 20-22	**California Society of Plastic Surgeons.** Del Monte Lodge, Del Monte, Calif.
Mar. 20-22	**Gynecology for Specialists.** U. of Minnesota Center for Continuation Study, Minneapolis
Mar. 20-22	**Pediatrics.** Tufts University, Boston
Mar. 20-22	**Refresher Course in Anesthesia.** Duke U. Hospital, Durham, N.C.
Mar. 20-22	**Surgery for Surgeons.** U. of Minnesota Center for Continuation Study, Minneapolis
Mar. 20-22	**Mid-Central States Orthopaedic Society.** Little Rock
Mar. 21-25	**Oregon Academy of Ophthalmology & Otolaryngology.** Oregon U. Medical School, Portland
Mar. 22-23	**Conference on Perinatal Mortality (Committee on Maternal and Child Care of AMA's Council on Medical Service).** Chicago
Mar. 23-26	**Annual Meeting, Aero Medical Association.** Statler Hotel, Washington, D. C.
Mar. 24-26	**Diabetes & Hypoglycemia,** U. of Pennsylvania, Philadelphia

Mar. 24-26	**Refresher Course in Allergic Conditions.** N.Y.U., N.Y.C.
Mar. 24-27	**Congress of International Anesthesia Research Society.** New Orleans
Mar. 24-27	**Tenth Annual Scientific Assembly, American Academy of General Practice.** Statler-Hilton Hotel, Dallas
Mar. 24-27	**Pediatrics.** U. of Washington, Seattle
Mar. 24-28	**Surgery of Trauma.** Stanford U., San Francisco
Mar. 24-28	**Anesthesiology: Endotrachial & Related Methods.** N.Y.U., N.Y.C.
Mar. 24-28	**Pulmonary Function in Health and Disease (American Trudeau Society).** Boston City Hospital, Boston
Mar. 24-28	**Pathology of the Oral Regions.** Armed Forces Institute of Pathology, Washington, D. C.
Mar. 24-28	**Pulmonary Diseases.** U. of Michigan, Ann Arbor
Mar. 24-28	**Radiology.** U. of Tennessee, Memphis
Mar. 24-29	**Anesthesia.** U. of Buffalo, Buffalo
Mar. 24-29	**Surgery of the Eye, for Specialists.** N.Y.U., N.Y.C.
Mar. 24-Apr. 5	**Otolaryngology.** Indiana U., Indianapolis
Mar. 24-Apr. 5	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 24-May 2	**Military Application Course for Nuclear Medical Officers.** Walter Reed Army Medical Center, Washington, D. C.
Mar. 25-29	**Annual Meeting, American College Health Association.** Ambassador Hotel, Los Angeles
Mar. 26	**Eleventh Annual Cancer Symposium.** U. of Indiana, Indianapolis
Mar. 26-28	**Diagnosis and Treatment of Surgical Heart Disease.** City of Hope, Duarte, Calif.
Mar. 27	**Obstetrics (U. of Nebraska).** Lincoln
Mar. 27	**Medico-Economic Problems (District of Columbia Medical Council).** Hotel Statler, Washington, D. C.
Mar. 27-29	**American Radium Society.** Hollywood Beach Hotel, Hollywood, Florida
Mar. 28-29	**Edema (U. of Southern California).** Hotel Statler, Los Angeles
Mar. 29	**Children's Hospital Medical Seminar.** U. of California, San Francisco
Mar. 29-30	**Fifteenth Annual Meeting, American Psychosomatic Society.** Netherland Hilton Hotel, Cincinnati
Mar. 29-30	**Problems of the Aged (Regional Meeting of AMA's Committee on Aging).** Birmingham
Mar. 31-Apr. 2	**Gynecology for Specialists.** U. of Minnesota, Minneapolis
Mar. 31-Apr. 2	**Surgery in Acute Trauma.** Letterman Army Hospital, San Francisco
Mar. 31-Apr. 2	**Southwestern Surgical Congress.** Shamrock Hilton Hotel, Houston
Mar. 31-Apr. 4	**Clinical Neurology (Columbia U.).** Mt. Sinai Hospital, N.Y.C.
Mar. 31-Apr. 4	**Clinical Use of Radioactive Iodine.** Cook County Graduate School of Medicine, Chicago
Mar. 31-Apr. 4	**Metabolism & Endocrinology.** U. of Michigan, Ann Arbor
Mar. 31-Apr. 4	**Ophthalmic Plastic Surgery, for Specialists.** N.Y.U., N.Y.C.
Mar. 31-Apr. 4	**Ophthalmology.** Stanford U., San Francisco
Mar. 31-Apr. 5	**Audiology.** Northwestern U., Chicago
Mar. 31-Apr. 18	**Physical Rehabilitation Methods for Nurses.** N.Y.U., N.Y.C.
Apr. 1-3	**Surgery in Acute Trauma.** Fitzsimons Army Hospital, Denver
Apr. 1-5	**Practical Electrocardiography.** New York Polyclinic Hospital, New York City
Apr. 1-12	**Bahamas Medical Conference.** Dolphin Hotel, Nassau, Bahamas
Apr. 1-30	**Clinical Gastroenterology.** New York Polyclinic Hospital, New York City
Apr. 1-30	**General Medicine.** New York Polyclinic Hospital, New York City
Apr. 1-30	**Physical Medicine and Rehabilitation.** New York Polyclinic Hospital, New York City
Apr. 1-30	**Refraction.** New York Polyclinic Hospital, New York City
Apr. 1-May 23	**Histopathology for Gynecologists.** N.Y.U., N.Y.C.
Apr. 2-4	**American Association of Anatomists.** Buffalo
Apr. 2-5	**Cardiovascular Seminar.** U. of Mississippi Medical Center, Jackson
Apr. 4-5	**Society of Clinical Surgery.** St. Louis
Apr. 4-12	**International Congress of Neo-Hippocratic Medicine.** Athens and the Isle of Cos, Greece
Apr. 7-8	**Pediatrics.** U. of Nebraska College of Medicine, Omaha
Apr. 7-9	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-9	**Ophthalmology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 7-9	**Radiology for GPs.** U. of Minnesota, Minneapolis
Apr. 7-9	**Surgery in Acute Trauma.** Brooke Army Medical Center, Fort Sam Houston
Apr. 7-9	**Surgery in Acute Trauma.** Madigan Army Hospital, Tacoma, Washington
Apr. 7-11	**Diagnostic Radiology.** U. of Michigan, Ann Arbor
Apr. 7-11	**Diseases of the Blood and Blood-Forming Organs.** U. of Michigan, Ann Arbor
Apr. 7-11	**Gynecological Endocrinology.** N.Y.U., N.Y.C.
Apr. 7-11	**Gastroenterology (Columbia University).** Mount Sinai Hospital, New York City
Apr. 7-11	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Apr. 7-12	**Clinical Allergy.** VA Hospital, Pittsburgh
Apr. 7-18	**Clinical Use of Radioisotopes.** Indiana University, Indianapolis
Apr. 7-18	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-18	**Endaural Surgery (Columbia University).** Mount Sinai Hospital, New York City
Apr. 7-19	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-May 29	**Internal Medicine.** N.Y.U., N.Y.C.
Apr. 8-10	**Postgraduate Conference.** Creighton Memorial-St. Joseph's Hospital, Omaha
Apr. 8-10	**Traumatic Surgery.** U. of Wisconsin, Madison
Apr. 9-11	**Fractures and Dislocations.** U. of Tennessee, Memphis
Apr. 9-11	**Otolaryngology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 9-11	**Sixth Annual Spring Postgraduate Assembly.** U. of Nebraska College of Medicine, Omaha
Apr. 9-12	**Annual Meeting, California Tuberculosis and Health Association, California Trudeau Society and the California Conference of Tuberculosis Workers.** Sheraton-Palace Hotel, San Francisco
Apr. 9-14	**Congress of the International Association of Applied Psychology.** Rome, Italy
Apr. 10-11	**Problems in Pediatric Practice.** State University of New York Upstate Medical Center, Syracuse
Apr. 10-12	**Arthritis and Physical Medicine for GPs.** U. of Minnesota, Minneapolis
Apr. 10-12	**Association of Surgeons of Great Britain and Ireland.** Belfast, North Ireland
Apr. 10-12	**Hematology.** Tufts University, Boston
Apr. 10-12	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
Apr. 11-12	**Valley Children's Hospital Spring Clinics.** Roosevelt High School Auditorium, Fresno, California
Apr. 12	**Trauma for GPs.** U. of Minnesota, Minneapolis
Apr. 12-20	**Pan American Congress of the History of Medicine.** Rio de Janeiro, Brazil
Apr. 13-16	**International Association for Skiing Traumatology and Winter Sports Medicine.** Davos, Switzerland
Apr. 13-20	**Sixth Annual Interim Scientific Meeting of Phi Lambda Kappa Fraternity.** Deauville Hotel, Miami Beach
Apr. 14-15	**Dermatology.** U. of Oregon, Portland
Apr. 14-16	**Anesthesiology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 14-16	**Clinical Reviews.** Mayo Clinic and Mayo Foundation, Rochester, Minnesota
Apr. 14-16	**Gastroenterology for GPs.** U. of Minnesota, Minneapolis
Apr. 14-17	**Sixth Congress of the Pan American Medical Women's Alliance.** McAllister Hotel, Miami
Apr. 14-18	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 14-18	**Diseases of the Heart.** U. of Michigan, Ann Arbor
Apr. 14-18	**Regional Anesthesiology.** N.Y.U., N.Y.C.

(Continued on page lxxvi)

Gifts and Short Term Trusts

NOEL T. ROBINSON

Des Moines

The subject matter to be discussed herein is some of the most delicate in the field of estate planning. Thus, a preliminary warning is in order. Before making any gifts or setting up a trust, one should by all means consult his attorney for advice. Not only are these matters complex, but the rules are changed frequently by legislative action and court decisions.

WHY MAKE GIFTS AT ALL?

We all know that we cannot take our property with us, but why should one give it away during his lifetime? The answer is simple: it's generally cheaper to give it away than to die with it.

Both the estate tax and the gift tax are levied on the transfer of property, rather than on the property itself, and the rates on both are graduated, increasing with the size of the gift and the estate.

The Gift Tax Law became effective on June 6, 1932. In general, there are three times when transfers of property can take effect. One is during the transferor's lifetime, the second is at the time of his death and the third is sometime after his death.

Consider whether you should take advantage of the gift tax exemptions and exclusions in order to cut down the eventual death taxes on your estate. If you can afford to take the financial consequences of immediate gifts, you can effect a major saving in death taxes and income taxes.

Excluded from the amount of taxable gifts is an annual fixed amount of $3,000 for gifts to each and every donee. This annual exclusion is in addition to the specific lifetime exemption of $30,000.

Before the advent of the marital deduction, gifts were frequently made by a husband to his wife. Now, the marital deduction provisions of the federal estate-tax law permit the transfer at death of at least half of one's property to a living spouse, it usually seems more advantageous to make gift transfers to children or to a trust for children, in which the wife can participate if sums either from the income or the corpus are needed for her support.

In case of a gift in trust, the beneficiary of the trust is the donee and not the trust itself. There are, therefore, as many $3,000 exclusions as there are beneficiaries taking a present interest, as distinguished from a future one.

The $3,000 annual gift tax exclusion was frequently unavailable, under the original provisions of the law, when trusts were created or increased for the benefit of infants. Such gifts were treated as "gifts of future interests" when the income could be accumulated, or when it was not certain that it would be used for the immediate benefit of the infant. The 1954 Code, however, has given us some relief in this respect. A gift to a trust created for the benefit of an infant is not treated as a gift of a "future interest," if the property in the trust and the income may be spent for the infant's benefit during his or her minority and if the remaining trust assets are payable to him or her at age 21, and provided that if he or she dies before reaching majority, the principal and accumulated income passes to the child's estate or to the child's appointee under a general power of appointment.

A word of caution should be interposed at this point. If the trust is to be set up by a parent for the use of his child before the child becomes emancipated, there is a possibility that the income could be taxed to the parent. A lawyer should be asked for guidance in this regard.

Gift "splitting" permits husbands and wives to cut their gift tax burden, just as filing joint returns helps them lower their income tax load. In addition to throwing taxable gifts into lower gift tax brackets, gift splitting doubles the exemptions and exclusions available to a husband and wife by treating each as a separate donor.

A gift made by a married individual to someone other than his spouse may be considered as having been made one-half by himself and one-half by his spouse.

One half of any gift to a spouse is exempt from tax, without the use of the normal exclusions or exemption. For example, if you were to give your wife $10,000 in one year, $5,000 of it would be exempt under the marital provisions of the gift tax law, and an additional $3,000 would be excluded annually. Therefore, you would have cut into your lifetime $30,000 gift-tax exemption only to the extent of $2,000 to transfer the property tax-free.

With the consent of your spouse, you can take advantage of her gift-tax exclusions and exemption as well as your own in gifts to third persons. As an illustration, suppose you wish to make gifts to your daughter. You could give her $3,000 per year as excluded gifts. With the consent of your wife, you could give your daughter twice $3,000, or $6,000, per year in excluded gifts, and on top of these you could give your daughter $60,000 free of gift tax, this being the total of your lifetime exemption and your wife's.

The tax is imposed on all transfers of property by gift. The important elements determining whether the transfer constitutes a gift are: (1) the competence of the donor to make the gift; (2) the donor's intention to make a gift; (3) delivery of the subject matter of the transfer; (4) the donor's

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relinquishing control over the property; (5) acceptance of the gift by a competent donee; and (6) the absence of adequate consideration for the transfer.

If property is transferred for less than an adequate and full consideration in money or money's worth, there is a gift to the extent that the value of the property exceeds the value of the consideration received.

Ordinarily, a transfer is not complete for gift-tax purposes unless there is a delivery of the subject matter of the gift.

A gift tax is imposed on the insured's payment of premiums on life insurance if the proceeds of the policy are to be payable to a beneficiary other than the insured's estates and if the insured retains no right to change the beneficiaries or avail himself of the other privileges of ownership. The value of such a gift is the amount of the premiums paid.

JOINTLY OWNED PROPERTY

Husbands frequently place title to their home jointly in their own and their wives' names under the impression that by doing so they will escape death taxes—that the property will pass to the wife at the husband's death without death tax. This is incorrect. Jointly-held property (in contrast with what is called a "tenancy in common," in which each party owns half of the property) passes directly to the survivor without the intervention of a will. But it is taxed in the estate of the one who paid for it, and in the absence of proof to the contrary, it is presumed that the property was paid for in full by the first of the joint tenants to die. Thus, the burden is passed to the survivor to prove what part, if any, of the purchase price he or she paid, and that is not always easy to do. Because of this difficulty, joint holdings should generally be avoided.

The 1954 Revenue Code brought some measure of relief. It provides, for joint tenancies in real property created in 1955 or subsequent years, that the purchaser husband may elect to treat the tenancy as a completed gift by filing a gift-tax return and paying the appropriate gift taxes. If he does not so elect, there will be no taxable gift until the property is sold or otherwise liquidated prior to his death and the wife receives a share of the proceeds or property disproportionate to her contribution.

The mere creation of a joint bank account by a taxpayer for himself and another does not constitute a taxable gift. However, when the other person draws upon the account for his own benefit, a gift is made. The gift tax is based upon the amount drawn from the joint account by the person not contributing funds to the account. Naturally, such a gift, if made by a taxpayer to his wife, enjoys the benefits of the marital deduction. For instance, a withdrawal by the taxpayer's wife of money deposited by the taxpayer in a joint bank account in his and his wife's name is a gift only to the extent of one-half the amount withdrawn.

There is no gift if A purchases U. S. Savings Bonds with his funds and has the bonds registered as the property of "A or B," or "A, payable on death to B." In both cases A may redeem the bonds in his own lifetime for his own benefit. But there is a gift, in the year of purchase or registration, if A purchases bonds with his own funds and has them gratuitously registered as the property of "B," or "B, payable on death to C."

GIFTS OF LIFE INSURANCE

The changes in the estate taxation of life insurance made by the 1954 Code have added attractiveness to gifts of this sort. If one chooses the gift method of reducing his taxable estate, insurance may in some instances be a far more desirable medium than cash or securities. If, for instance, the market value of your policy is $2,000 and its face value is $10,000, you are making a gift of $2,000, but are removing from your estate the $10,000 that would have been included if you had died owning said policy.

Before using life insurance as a part of your gift program, you should take note of the consequences. After you have transferred your policy to the donee, you will no longer be able to borrow money by using the cash surrender value as security, you will have none of the other incidents of ownership, and the donee may cash the policy or dispose of it in any other way.

There are some major hazards which may make it unwise for a man to divest himself of any portion of his estate. (1) The donee may be improvident, extravagant and lacking in business judgment in his or her handling of the gift property. (2) The estate owner may not be rich enough to justify his endangering his financial security by divesting himself of assets which may be of value to him in his retirement or in his later business operations. (3) The donee may die before the donor, thus creating a taxable estate for himself.

Although the gift tax, if any, is due and payable by the donor, it remains a lien against the subject matter until it has been paid. The lien extends for a period of 10 years, and if the tax is not paid before the donee sells the property in question, it then attaches to all of the other property of the donee (both the remaining property and that which is subsequently acquired) until it has been paid or until 10 years has expired.

The gift, in one form or another, is a major estate-conservation device, particularly for the large estate. There are a number of factors, both tangible and intangible, which will determine the best type of program to follow. A careful review of your situation with your attorney, insurance counselor or trust officer may convince you that even tax-wise it may be more blessed to give than to receive.

THE SHORT TERM TRUST

Between the irrevocable commitment and the

revocable living trust, subject to change at any time, is the reversionary or short-term trust. One may transfer an income-producing property to an irrevocable trust for a period of 10 years or more, and provide that either on the death of the beneficiary or at the end of the term stipulated at the time of the transfer, the property is to come back to the grantor. The income during the term of the trust will be taxed to the trust or to the beneficiary, depending upon the terms of the trust with respect to the distribution of the trust income. Thus, the short-term trust provides a way to transfer income to less severely taxed entities during a period of high earnings and income, and at the same time it permits one to recover the capital for use in his retirement or in a period when the income will be otherwise more valuable to the original owner of the income-producing property.

During the term of years for which an irrevocable trust has been set up, its income will not be taxed to the grantor if one of the following conditions is met: (1) if the trust is to last for the lifetime of the beneficiary, even though the beneficiary may be expected to live only a few years; (2) if the trust is to last for 10 years; or (3) if the trust is to last for two years or more and the income during that period is to be paid to (a) a church, (b) an educational institution or (c) a hospital.

When income-producing property is turned over to a trust which meets the foregoing rules, the tax results are as follows:

1. The tax on the annual income of the trust can be shifted from the original owner of the property to the trustee or to the beneficiary or partly to each, depending upon whether the income is to be accumulated or is distributable.

2. There are no important estate-tax savings on the death of the grantor, for his reversionary interest, discounted for the remaining years of the trust, is part of his taxable estate.

3. Gift tax is payable on the present value of the property, less the value of the reversionary interest. The value of a gift for 10 years is 29.1 per cent of the value of the property. If the trust requires current distribution of all income to the beneficiary, the $3,000 annual exclusion will apply. If income is to be accumulated or if the trustee has discretion about whether it should be distributed or accumulated, the $3,000 exclusion applies only if the beneficiary is a minor and accumulations are paid over when said minor reaches his majority.

TRUST TO SUPPORT A RELATIVE

If you are married and have a taxable income of $34,000, you can give your 66-year-old mother $100 a month by placing $30,000 of securities in trust for her life. She will thus receive $1,200 annually, and the income tax on that amount will be cut from about $600 in your own return to zero, since your mother will owe no taxes. By making such an arrangement, you will have lost a dependency credit with a tax value of $300. The $1,200 will go to your mother tax-free, thus leaving you a net gain of $300 per year.

Ten-year term trusts can be used to accumulate income at low rates for such purposes as (1) to provide an educational fund for grandchildren; (2) to build up a fund for helping children start their own businesses, etc.; or (3) to give children fully-paid or low-cost insurance which they can carry into adult years.

At the end of 10 years, the initial capital is recovered by its original owner, and the accumulated income becomes capital available for the children.

For example, suppose that a grandfather is sure his 30-year-old son will do well in the new business he is starting, but knows that the son has everything tied up in that business and hasn't been able to protect his family adequately in case of his death. The grandfather can take care of that problem through a term trust set up to finance a 10-year-pay life contract on his son's life for the benefit of his three grandchildren and his daughter-in-law. He puts $100,000 into the trust. At four per cent return, the income will finance a $50,000 policy on the son's life.

At the end of 10 years, the grandfather gets back his $100,000, and his son's family has a fully-paid policy on the son's life. The $100,000 has a $30,000 gift-tax value and is not entitled to the $3,000 annual exclusion. However, the $30,000 lifetime exemption can be used to wash out all tax liability.

Though the law varies from state to state, parents are usually liable for the support of their children. Support includes not only necessities but, in some instances, educational costs and other items that may be regarded as essential to the family's standard of living. If a father creates a short-term trust for the benefit of his children, the income will none the less be taxable to him if it is in fact used to pay expenses that are his obligation under the law. On the other hand, if such trust income is accumulated, invested or spent for items that he is not legally obligated to furnish, the income will not be taxable to the father. These principles should be borne in mind when one creates short-term trusts for the benefit of his children. The problems involved are apt to be minimized if someone other than the parent serves as trustee for the minor children.

SPRING DANCE

Monday, April 21, 9:00-12:00

Grand Ballroom—Hotel Savery

Benefit—Woman's Auxiliary Educational Loan Fund and American Medical Education Foundation

Don Hoy's Popular Orchestra

Standard Medical & Surgical Company will sponsor the social hour from 8:30

Scientific Articles

One Hundred Colon Cancers

JAMES F. BISHOP, M.D.

DAVENPORT

ALL CANCERS ARE IMPORTANT, but three factors make carcinoma of the colon a disease of considerable significance. First, it it a common cancer. Second, it usually is easily diagnosed. Third, its survival rates are better than those of most other malignancies.

This is a report of one man's experience and reflections gained in operations upon 100 people who had carinoma between the cecum and the anus. The series began in 1947, and includes a few cases in early 1954.

Ninety-nine of these cancers were adenocarcinomas, and the other was a squamous cell lesion of the anus. Two other squamous cell neoplasms were seen during this period, so that the distribution approximated that usually reported—from 3 to 5 per cent of the squamous cell variety.

These 100 people had 115 operations, and since there were five surgical deaths, the mortality rate was 4.3 per cent.

Of the 100 cancers, 60 were 15 cm. or less above the anus and were considered rectal. Thirty-six were in the sigmoid. It is usually reported that the majority of large-bowel malignancies are within reach of the 10-inch sigmoidoscope.

There were 51 males and 49 females, ranging in age from 34 to 87 years, with two thirds of them in their 50's and 60's. Since the period covered by this review, I have operated upon a 15-year-old boy for carcinoma of the descending colon. He had widespread lymphatic metastases, and expired about six months after surgery.

Forty-nine per cent of these people had family histories of cancer, and 38 per cent of 200 routine controls also had family histories of cancer. From such figures, one can draw no conclusion other than that quite a few people have cancer.

DIAGNOSIS

Pathologically, carcinoma of the colon presents itself in several forms. The fungating, polypoid lesion of the right colon and the annular, ulcerated neoplasm of the left are most familiar. Either lesion, of course, may also appear in either half of the colon. Then, too, the fern-like villous tumor or papilloma usually has carcinoma somewhere in its depths, the pedunculated polyp often harbors areas of excessive cell activity, and even a match-head-sized sessile polyp may already show invasion. Upon occasion, a portion of the surface of a lesion may be papillomatous and microscopically benign while a contiguous area of the same lesion is ulcerated and definitely invasive. This seems to illustrate the transition of a benign papilloma into a true carcinoma.

These tumors involve surrounding structures by adherence from infection and direct invasion. Metastasis is most likely to be to regional nodes or to blood borne to the liver. In this group, however, I also found a nodule astride the optic chiasma, cervical and axillary metastases, masses in lungs, and even a subcutaneous nodule over the sternum.

By far the commonest presenting symptom was rectal bleeding as gross blood, bloody mucus, or both. In all but a few instances, this bleeding preceded changes in bowel habit, excessive flatulence and pain.

Diagnosis of colon carcinoma is easily verified by biopsy, when within reach of the sigmoidoscope. Upon occasion one encounters a patient who cannot—or will not—tolerate penetration of the scope to its limit. There is, then, some three or four inches of sigmoid not visualized in an area where x-ray is quite undependable and where cancer is quite common. When suspicion is strong enough, sigmoidoscopy under anesthesia is indicated. In some circles, such examination is somehow considered unsportsmanlike—comparable, perhaps, to fishing for trout with a worm and a cork. I have no such scruples, however, and on several occasions I have found lesions under anesthesia which I couldn't otherwise have detected.

When the diagnosis must be made by x-ray, diverticulitis is the lesion most likely to cause confusion. It has been very aptly said that the x-ray differentiation between cancer and diverticulitis



Figure 1. Diverticulitis in the descending colon.



Figure 2. Diverticulitis and carcinoma in the sigmoid.

usually is easy, sometimes difficult and occasionally impossible.

Figure 1 is an obstructing lesion just below the splenic flexure which the radiologist declared to be carcinoma until proved otherwise. With the abdomen open, the bowel mobilized and the lesion in hand, I couldn't be sure. It proved to be diverticulitis.

Figure 2 is an oblique view showing diverticulitis in the upper sigmoid with a typical carcinoma below it.

All patients with carcinomas visualized by the scope, unless obstructed, should have x-rays of the bowel. Associated polyps or even other carcinomas are not uncommon, and their presence modifies the type of resection planned.

SURGERY

The treatment of cancer of the colon is largely surgical and readily divides itself into three categories: prophylaxis, palliation and attempts at cure.

Preoperative preparation includes the correction of anemia and deficiencies in fluids, proteins and electrolytes. A number of bowel antiseptics are available and effective, and I believe in their use.

Prophylaxis includes excision of rectal or colonic polyps, whether single, multiple, or present in that bizarre lesion known as familial polyposis. Apparently it is from these polyps that full-blown carcinoma develops. Figure 3 illustrates a single pedunculated polyp of the sigmoid, and Figure 4 depicts familial polyposis.

At times, a rectal polyp excised through the scope will be reported as being of low-grade malignancy. I think one can safely observe such a site of excision at intervals, rather than inflict abdomino-perineal resection. Polyps within the colon probably are best treated by segmental resection for two reasons: first, segmental resection is a safer procedure than simple polypectomy, since the polyp may be reported as malignant; second, the site of excision cannot easily be checked for recurrence. Prophylaxis must also include excision of scarred, pseudopolypoid colons following long-standing ulcerative colitis, since such a bowel (Figure 5) has a far above average chance of developing cancer of a highly virulent type.

In 15 patients of this group, colostomies, resections and short-circuiting procedures were done for palliation, since distant metastases—usually to the liver—had made the disease incurable. When at all possible, the primary lesion should be removed, even when it means an abdomino-perineal resection. Marked—if temporary—improvement in well-being follows elimination of the ulcerated, bleeding, infected lesion. When a rectal cancer is thus excised, the patient need no longer be up at all hours, tormented by his tenesmus, trying to expel his lesion and its irritating by-products. Except in the presence of obstruction, there is little palliation in a colostomy which leaves behind the infected, ulcerated neoplasm. Though not noticeably affected these radio-resistant growths, deep x-ray therapy often relieves pain and is valuable palliation.



Figure 3. Single pedunculated polyp in the sigmoid.



Figure 4. Familial polyposis.

WIDE EXCISION IS IMPORTANT

In the light of present knowledge, treatment of carcinoma of the colon is based upon the time-space concept of cancer. This assumes that cancer is a localized disease for an unknown period of time, after which metastasis occurs. In the colon, metastasis takes place most commonly through the lymphatics, but sometimes by vein, usually to the liver. In this concept, a small cancer is an early one, and a large cancer is a later one. An early lesion has not metastasized, but a late one is likely to have done so. These theories, of course, are far from absolute, and we have all seen distant metastases from small primary lesions, and some large, infected ones that apparently were locally limited. In general, colon carcinomas have less biologic aggressiveness than have many other cancers, and are more likely than not to metastasize first to regional nodes.

Recognizing the shortcomings of the time-space concept, but realizing also that thus far we have nothing better with which to replace it, we must emphasize early diagnosis and radical excision in our efforts to cure cancer. Radical excision implies removing as much as possible of the regional node-bearing mesentery and a generous portion of bowel tube above and below the lesion. In left-sided lesions, this assumes ligation of the inferior mesenteric artery at the aorta, and the inferior mesenteric vein where it passes beneath the ligament of Treitz. This usually requires that the point of bowel division be in the mid- or distal trans-



Figure 5. Pseudo-polyposis following ulcerative colitis.

verse colon. Such a resection does not increase the patient's mutilation, for if he must lose his anal sphincters, it matters not whether his colostomy is in the transverse colon or in the sigmoid. If anastomosis is possible, it is easily done between the trasverse colon and upper rectum.

We are past the era when the removal of a small length of bowel and a triangular bit of mesentery was considered adequate treatment for cancer of the colon. Such a timid excision may well deprive the patient of whatever chance for cure he may have had. If one cleans out the axilla for cancer of the breast, one cannot, in all conscience, be less thorough for cancer of the colon, and being thorough requires radical excision of gland-bearing mesentery. Morbidity and mortality are little, if any, increased by the more radical operation. During the latter portion of the period covered by these 100 cases, 18 had high ligation of the inferior mesenteric vessels. None died, and none seemed to have increased morbidity. The procedure has been carried out many times since then, with equal safety. Figure 6A presents a rather typical carcinoma of the sigmoid. Figure 6B demonstrates the shortened bowel after a high-ligation resection.

Since blocking of regional nodes by tumor may direct the flow upward or downward in lymphatics, there is reason to urge even more radical resections of bowel and mesentery. Figure 7A illustrates a lesion of the distal ascending colon treated by end-to-end ileosigmoidostomy with excision of all the bowel and mesentery between. Figure 7B is a postoperative x-ray of that case.

Figure 8A pictures an invasive polyp of the splenic flexure and another polyp, also milignant, in the transverse colon. Here, the ileo-colic artery and the cecum were preserved, with ceco-proctostomy and excision of all the bowel and mesentery between. The result is shown in Figure 8B. Both patients tolerated their procedures very well and had little, if any, increased morbidity. Both are now comfortable, and pass from one to three stools daily. I cannot prove it, but I feel that both have a better chance for a cure than they might have had if their resections had been more local.

In this plea for more radical excision of bowel cancer, I should like to question the wisdom of surgical stunts. As our knowledge of body chemistry and physiology has grown, it has become possible for us to excise more and more tissue and still maintain life under circumstances that were completely fantastic not so long ago. Sometimes we are led to perform multilating procedures whose results do not justify the mutilation. They preserve life, but they leave the patient little chance of really living.

One of my own patients comes to mind, a man who had an abdomino-perineal resection, and then about 15 months later, developed evidence of pelvic recurrence. It was found that one ureter was completely blocked, and the other distorted by tumor mass. An ill-starred attempt was made to excise the recurrence, and ureterostomy performed. Rather than permit him the privilege of a painless uremic death, we prolonged his life and his torment until cordotomy became necessary, some six months after his ureterostomy.

We must, it seems, ask ourselves whether the more extensive and mutilating procedures now being done in the name of better cancer treatment are, in fact, therapeutic triumphs, or whether the point of diminishing returns has not long since been passed. We should examine again and again



Figure 6A. Typical carcinoma of the sigmoid.



Figure 6B. Shortened bowel after a high ligation resection.

our right to use our modern knowledge to deny the hopelessly ill patient the surcease of death.

In this series, the operations done in hope of a cure include 40 abdomino-perineal resections, and the rest were anterior or segmental resections. In a very few highly selected cases—usually poor surgical risks with large papillary neoplasms, apparently non-invasive—a local approach to rectal lesions was most useful. Easy access to the mid- and upper rectum can be gained by dividing the posterior midline up to the tip of the coccyx, including complete division of the sphincters. An alternate approach is through the bed of the coccyx and the posterior rectal wall. If preceded by adequate preparation and if properly repaired, both incisions heal nicely without incontinence.

Obstruction, when present, is far more likely to be due to a left-sided lesion. Although cecostomy is less shocking in the desperately ill, right transverse colostomy is, in general, preferable, since it provides better decompression and permits more effective irrigation of the distal segment.

Attempted resection in the presence of obstruction is unwise for two reasons: (1) the disturbances in chemistry and physiology resulting from the obstruction increase the risk; and (2) the dilated bowel makes adequate mobilization difficult if not impossible.

With obstruction relieved, preparation for definitive surgery can be carried out carefully, and resection can be done with relative safety, usually some 10 to 14 days later.



Figure 7A. Carcinoma of the ascending colon.

These operations were one-stage procedures, except in the presence of obstruction or where an anterior anastomosis below the peritoneum made proximal decompression seem wise. Except for a few closed ones early in the series, the anastomoses were open, end-to-end unions in which an inner layer of fine catgut and an outer layer of cotton or silk were used. End-to-end junctions between small and large bowel are quite satisfactory and can be done more quickly than end-to-side ones. The type of anastomosis and the kind of suture material are much less important than is the meticulous observation of the three cardinal principles of anastomosis: (1) a tight suture line to obviate immediate leakage; (2) a suture line without tension; and (3) the demonstration of adequate blood supply. He who ignores any of these principles invites necrosis, leakage, peritonitis, a secondary operation and, at best, a prolonged convalescence. Postoperative peritonitis is far more likely to be the result of a leaking suture line than of spillage at operation.

After abdomino-perineal resections, all the perineal wounds were left open widely, and the packing was removed on the third to fifth day. Sitz baths two or three times daily thereafter contribute to comfort, cleanliness and healing. These wounds heal completely in from two to six months.

Other postoperative measures in all these bowel operations include intravenous invert sugar in water until oral feeding is begun. Because the adrenals hold salt following surgical trauma, saline is not given for the first three days, and thereafter only if gastric suction is required.

ILEUS IS USUALLY SELF-LIMITING

Since the routine use of gastric suction provokes some argument, I should like to insert some comments about ileus. Ileus apparently is a physiologic



Figure 7B. Ileo-sigmoidostomy after the resection of the lesion shown in Figure 7A.

mechanism of defense, and cessation of peristalsis seems to be defensive in two ways: first, by preventing further extrusion of intestinal contents into the peritoneal cavity through a perforation or injury; second, by avoiding the gross movement of intestinal loops which would tend to spread infection. Perforation or other injury to the gastrointestinal tract or to some other organ, by threatening to cause peritoneal irritation or infection, produces ileus. One cannot expect the GI tract to differentiate between the insult of a perforated appendix or peptic ulcer, on the one hand, and injury to its integrity by surgical assault, on the other. It defends itself in the same manner under both circumstances. When the damage and the threat seem to be subsiding, the digestive tract resumes its activity—cautiously at first, and then with full confidence.

In the ideal instance following resection or other operation upon the colon, ileus begins to subside within from 36 to 72 or 84 hours. During this interval, not only are the muscular components of the tract quiescent, but the secretory activities are diminished as well, and the tract may be allowed to lie quiet, with the patient being given only ice chips by mouth. When borborygmus returns and the patient passes some gas, oral feeding may be started and increased as rapidly as the stomach will tolerate it, without regard for the site of the colon operation.

Several factors may delay recovery. They include prolonged operating time, with rough handling of the viscera, leakage or infection in the area of repair, and—vastly important—the effects of chronic anxiety and tension transmitted through the autonomic nervous system and prolonging paralysis.

There are those who insist upon routine nasogastric suction during the immediate postoperative period. Such a surgeon sends his patient to the operating room with the tube in place, and applies suction for a variable length of time postoperatively. When, about the third day, the patient begins to pass gas, the surgeon triumphantly pulls out his tube, delighted because he has cured his patient's ileus. He has done nothing of the sort! The irritation of the tube only adds to the patient's immediate postoperative burdens. Of 100 people in this series who underwent operations upon the colon by the abdominal approach, 73 did not require gastric suction at any time. In the remaining 27, suction was not required until at least 48 to 72 hours after surgery, and then in many instances only for 12 to 24 hours. It is often possible to predict which patient will require suction. Some are those who had small-bowel resection as well as colon surgery. Most, however, are the fussers and fretters and the air-swallowers, whose basic tension and anxiety seem responsible for prolonging the intestinal paralysis. In such a patient there is nothing for it but to suck out the greenish-black mixture which has accumulated in his stomach, keep up his fluids and electrolytes, and patiently await the return of bowel function.

I seldom use parasympathetic stimulants to encourage bowel activity for two reasons: first, a reluctance to place undue stress upon an anastomosis, and second, the possibility that the ileus



Figure 8A. Invasive polyps of the splenic flexure and transverse colon.

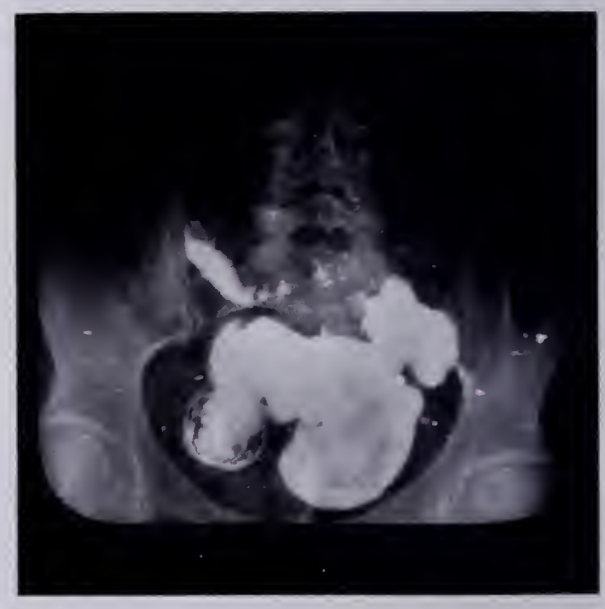


Figure 8B. Ceco-proctostomy after the resection of lesions shown in Figure 8A.

may have resulted from a localized peritonitis. In a rare instance, ileus may persist for seven days or so, and one is certain to suspect obstruction. In the absence of cramping, obstruction is unlikely, and watchful waiting is rewarded by a return of bowel function.

RESULTS

Complications encountered in these 100 people included seven wound infections of varying severity. There were seven instances of thrombophlebitis, none of which produced a demonstrable pulmonary embolus. There were four wound disruptions, an incidence not exactly praiseworthy, but perhaps partly excused on the grounds that every one of these people had cancer.

Of the patients operated upon for a cure, 24 had reappearance of their cancers in from four months to 2½ years. In no instance thus far has the tumor reappeared later than 2½ years after surgery. Thus in this small series of cases, a four-year survival seems significant, for no patient has died from his disease after surviving three years without recurrence.

As for results, we are all aware of the great difficulty in presenting statistics. I have taken as a yardstick the four-year survivals, which as I have just pointed out are just as logical as five-year ones. In this group, three have died cardiovascular deaths after having survived four or more years free from disease, and are included. There are some others, including a suicide, who were apparently free from disease at the time of their deaths from other causes. They had not survived four years. I have included them as operations, but not as survivors.

With that understood, I can report that of 68 patients operated upon four or more years ago in hope of a cure, 42 lived at least four years. Thus, the four-year survival rate is 62 per cent.

SUMMARY

Of 100 people operated upon for cancer between the cecum and the anus:

1. Ninety-nine had adenocarcinoma, and the other had a squamous cell lesion.
2. One hundred fifteen operations were done with five surgical deaths, for a mortality rate of 4.3 per cent.
3. Two-thirds of the patients were in their fifties and sixties.
4. Bleeding was the most common first symptom.
5. Fifteen were obviously incurable at operation, and 85 offered some hope for a cure.
6. In the postoperative period, 73 did not require gastric suction.
7. All who had reappearance of their cancers had it within 2½ years of surgery.
8. Forty-two of those operated upon for cure lived at least four years. Thus, the four-year survival rate was 62 per cent.

The Mechanism of Orinase

Dr. Ernst F. Pfeiffer, chief of the diabetes clinic at the University of Frankfort and currently a Fulbright scholar and research fellow at Harvard, told an audience in Kalamazoo, Michigan, on January 30, that tolbutamide (Orinase®—Upjohn) stimulates the manufacture and release of natural insulin by the patient's own insulin-producing beta cells. Heretofore, numerous theories regarding its mechanism have been proposed and then eliminated on the basis of laboratory studies.

He reported that research workers at Harvard have demonstrated the release of insulin into the blood stream of laboratory animals following administration of the drug. To accomplish this, Drs. Don Martin and Albert E. Renold, of Peter Bent Brigham Hospital and Harvard Medical School used radioactive carbon (C^{14}) as a tracer, a technic capable of measuring 10-millionths of a unit of insulin in a half-teaspoonful of blood.

Regarding the efficacy of tolbutamide in the management of diabetes, Dr. Pfeiffer said, "If patients are properly selected for Orinase therapy and maintained under medical supervision, 78 per cent of diabetics whose disease occurs in later life can be controlled on the oral drug." Of the estimated 3,000,000 to 4,000,000 diabetics in the U. S., it is believed that approximately 75 per cent are of the so-called adult-onset or mature type, in whom the disease has occurred after the age of 30 years.

In a large-scale German study described by Dr. Pfeiffer, 758 patients were observed in clinics at the University of Frankfort for periods up to two years. Of that total, only 8 per cent failed to respond to a therapeutic trial with Orinase, and another 7.8 per cent failed to maintain satisfactory control after a few months of treatment and were described as "secondary failures." There were no instances of secondary failure in any who had previously been maintained on the drug for 10 to 12 months. Minor undesirable side effects such as skin rashes were found in only 1.9 per cent of patients. Commenting upon Dr. Pfeiffer's report, Dr. Rachmiel Levine, of Chicago, said that the German experience confirms the findings of major diabetic clinics and research centers in this country.

It is of interest that in the 36 years since insulin was first made available for the treatment of diabetes, its exact mechanism of action has remained unknown, and the Harvard discoveries about the action of tolbutamide haven't altered that situation.

Surgical Significance of Small Bowel Tumors

LEO H. KUKER, M.D.

CARROLL

Tumors of the small bowel are comparatively rare, yet they present a very interesting group of surgical problems. To substantiate the infrequency of small-bowel tumors, one needs only refer to Raiford's classic essay in which he reports finding no more than 88 cases noted in 11,500 necropsies in the general pathological department of Johns Hopkins Hospital and 45,000 specimens from the surgical pathology department of that institution. Approximately half of such tumors are malignant.

Anatomically, the small bowel begins with the duodenal cap and terminates at the ileocecal valve. This part of the gastrointestinal tract measures approximately 20 feet, yet it is responsible for only about 3 to 5 per cent of all tumors occurring in the gastrointestinal tract.

Embryologically, the part of the duodenum from the bulb to the ampulla of Vater is derived from the terminal part of the fore-gut, and it receives its blood supply from the celiac axis. The remainder of the small bowel is derived from the mid-gut and receives its blood supply from the superior mesenteric vessels.

The lymphatic drainage from the duodenum consists of an anterior and posterior chain which opens into a series of small pancreatic duodenal glands situated on the anterior and posterior aspects of the groove between the head of the pancreas and the duodenum. The efferents of these glands run in two directions—upward to the hepatic glands, and downward to the pre-aortic glands around the origin of the superior mesenteric artery. The lymphatics of the jejunum and ileum drain into the mesenteric nodes, then to the pre-aortic nodes and finally into the cisterna chyli.

The functions of those structures derived from the fore-gut are chiefly digestive, and the functions of the structures derived from the mid-gut are primarily absorptive.

In general, tumors of the small intestine tend to grow toward the lumen of the bowel and are referred to as intraluminal tumors. A minority (about 5 per cent) grow toward the serosal surface and are called external tumors. Primary malignant tumors usually arise from the mucous membrane or from the structures just beneath it. They tend to infiltrate the bowel wall in a napkin-ring fashion and constrict the bowel lumen, producing a gradual, progressive obstruction. Polypoid tumors are usually benign, though they sometimes undergo malignant change. These tumors may have a sessile or pedicle attachment.

The symptomatology of the small bowel is associated with the degree of obstruction produced either in the bowel lumen itself or in the associated structures that drain into it. These symptoms may vary from simple flatulence and constipation to a fullness, bloating, nausea, regurgitation, burning sensation, vomiting or actual stabbing or colicky pain. Obstruction of the common duct usually produces jaundice.

The pain produced by a lesion of the small bowel frequently gives the key to its location. For example, pain from a lesion of the upper or first part of the duodenum is usually referred to the epigastrium, but may occasionally be referred to the right lower quadrant. Pain from a lesion in the jejunum or upper ileum is usually referred to the periumbilical region. Pain originating from a lesion in the lower ileum is frequently referred to the left lower quadrant. A lesion of the terminal ileum may mimic the findings in a case of acute appendicitis.

Obviously, all of the findings in any given case may vary according to the stage to which the disease has progressed. Occult blood in the stool is one of the most consistent findings in tumors of the small bowel. There may be no more than a microscopic amount; the bleeding may be massive; and there may even be an exsanguinating hemorrhage. It has often been pointed out that any patient who presents a chronic secondary anemia that fails to respond rapidly to the usual conservative methods of supportive care should be regarded as a possible case of small-bowel tumor until proved otherwise.

BENIGN TUMORS

Benign tumors may spring from any of the tissues of the small bowel, and they may take the form of angiomata, lymphangiomata, fibromata, myxomata, myomata, adenomata, papillomata or lipomata. Hemangiomata usually appear on the surface of the small bowel as multiple small angiomata presenting a bluish or purplish appearance. These vascular tumors frequently give rise to intestinal bleeding, and at times may cause a massive hemorrhage that is potentially exsanguinating. Indeed, massive if not fatal hemorrhage is the principal danger posed by myomata of the small intestine. The next greatest threat is the tendency these tumors have to undergo malignant degeneration.

The in-growing tumors of this type rapidly cause obstruction, and prompt surgical intervention becomes necessary for that reason. Those growing to the outer surface of the bowel frequently become malignant. The majority of these patients succumb, sooner or later, to exsanguination unless relieved by surgery.

Adenomata and papillomata are not uncommon in the small bowel, but they rarely attain a size

great enough to produce symptoms. Therefore, they usually are recognized only at necropsy.

Lipomata may be found anywhere along the small bowel, and because of their slow growth, they are seldom diagnosed early. Oftentimes such a tumor has a small pedicle which may be broken, with the result that the tumor passes on through the rectum. Usually there is just one of them, but sometimes several lipomata may be found in the same patient. The majority of them grow into the lumen, and occasionally they become ulcerated and produce hemorrhage, though such is not usually the case.

Case No. 37,028. A 30-year-old white male was admitted to the hospital on February 5, 1952, with a chief complaint of severe abdominal pain in the left upper quadrant of 24 hours' duration. He had been seen by his physician very shortly after the onset of the pain and was told to go to the hospital, but because he had had previous less-severe attacks from time to time for about a year, he went home instead. Before he finally entered the hospital, the pain became more severe and colicky, he had a bloated feeling, and he became nauseated and vomited. On admission, he appeared acutely ill, with severe, cramping abdominal pains.

Examination revealed a well nourished and developed young white male. The general examination was essentially negative, except for the abdomen, which revealed upper distention, and hyperactive peristalsis and borborygmi. Palpation revealed pain and tenderness in the left periumbilical region, with slight rigidity and moderate rebound tenderness over that area.

A plain upright film of the abdomen revealed fluid levels in several loops of small bowel in the upper abdomen. Laboratory findings included a white count of 17,700, with a differential of 70 segmentals, 21 lymphocytes, 7 monocytes and 2 eosinophils. The hemoglobin was 97 per cent, and the red blood count was 5,200,000, with a hematocrit of 47. The Kahn was negative, and the urine findings were negative for pus or red blood cells, albumin and sugar.

A diagnosis of acute small-bowel obstruction was made. A Miller-Abbott tube was inserted and the bowel decompressed. Intravenous fluids were started, and the patient was taken to surgery. A large pedunculated intraluminal lipoma was removed by resection of an affected length of bowel containing a rudimentary intussusception. A primary end-to-end anastomosis was performed. The pathologic examination revealed that the lipoma contained several areas of ulceration.

The postoperative course of the patient was uneventful, and he was discharged on the eighth postoperative day in good condition.

Cysts of the small bowel are quite rare. They may be singular or multiple, and the contents may be mucilaginous or fluid in consistency. They are usually considered embryologic arrests, most likely from the vitelline duct system or the primordium. Endometriomata occasionally attack the small bowel, but they are more common in the large one, and since they are secondary to endometriosis, they will not be considered in this paper.

Meckel's diverticulum

Meckel's diverticulum, first described in 1809, is found in approximately 2 per cent of all individuals. It is the result of incomplete atrophy of the vitelline or omphalomesenteric duct, which normally disappears during the early weeks of fetal life. When present, its shape may vary from a pouch with a broad base to a rather long, narrow projection resembling an appendix. Its location is about 30 to 90 cm. proximal to the ileocecal valve. Occasionally it may contain gastric or duodenal mucosa or aberrant, pancreatic tissue. These various structures are probably due, according to the embryologists, to the pluripotency of the cells that line the vitelline duct in the primitive intestine.

Occasionally, carcinomatous degeneration of Meckel's diverticulum may occur, but it is very rare. Occasionally, the heterotopic tissue produces a severe hemorrhage or a mild oozing, resulting in a severe secondary anemia. In general, the clinical findings are similar to those of an acute appendicitis, except that the location of the pain is usually periumbilical or in the left lower quadrant. Prompt surgical intervention is indicated to relieve the condition.

Malignancies

The three primary types of malignant tumors of the small bowel, in the order of their frequency, are adenocarcinoma, sarcoma and carcinoid. Adenocarcinomas are rather uncommon lesions which, according to Ewing, comprise about 3 per cent of all malignancies of the gastrointestinal tract. At the Mayo Clinic between 1919 and 1929, carcinoma of the small bowel was seen in 31 cases, as compared to 2,775 cases of carcinoma of the large bowel and 2,646 cases of carcinoma of the stomach. The average age of patients with carcinoma of the small bowel was approximately 55 years, and there was a ratio of two to one of male and female patients.

In brief, the onset of upper-duodenal cancer is usually heralded by epigastric discomfort, pain, flatulence, belching or some loss of weight, and detection of occult blood in the stool. Later, jaundice develops from involvement of the ampulla of Vater or bile ducts, or there are bouts of vomiting resulting from the duodenal occlusion. Later, this picture is overshadowed by an extreme toxemia from a combination of intestinal, biliary and pancreatic obstruction. The average life expectancy in these cases, if surgery is withheld, is only about seven months from the onset of symptoms.

Gastric analysis in duodenal cancer is oftentimes a very valuable procedure. In cancerous obstruction of the duodenum at the ligament of Treitz, for example, the gastric juice will show the presence of much bile and pancreatic juice in the gastric

contents. In the presence of a high intestinal obstruction, the absence of these secretions in the stomach indicates that the obstruction is in the fore-gut, proximal to the entrance of these substances into the small bowel.

In general, the prognosis of duodenal cancer is poor, despite the fact that carcinomas in the vicinity of the ligament of Treitz metastasize with no more than moderate promptness. Because of the early lymphatic drainage to the retroperitoneal lymph nodes, the inaccessibility of metastases from a cancer in this area frequently makes the tumor inoperable, whereas the more distally situated carcinomas permit a wide resection of the mesentery and in early cases permit a cure. In early duodenal cancers, adequate surgery may be of considerable value, but in later cases, palliative measures are indicated in selected cases.

The symptoms of carcinoma of the jejunum and ileum depend almost entirely upon the mechanical bowel obstruction or bleeding. The obstruction is usually direct from the tumor, but it may have been caused by kinking or intussusception produced by the neoplasm. The complaints are those of obstruction, abdominal cramping, distention, nausea and vomiting. Frequently, the illness is sudden in onset, because of the completion of a previously incomplete obstruction from whatever cause—edema, foreign body, coarse food particles, etc. Occult blood is found in the stools of almost all patients. As has been previously stated, one of the first signs of carcinoma of the small bowel is the slowly developing anemia, which may resemble pernicious anemia, but fails to respond to the usual therapeutic administration of liver products. Naturally, weakness and malaise accompany the anemia. The amount of vomiting will be proportional to the proximity of the obstruction, and conversely, the lower the level of obstruction, the greater the distention.

By the time these patients present themselves to the doctor, they often have lost a great deal of weight, and a careful physical examination quite often demonstrates the tumor. If it is in the lower part of the small bowel, it is readily movable and somewhat tender. The following two case reports represent adenocarcinomas of the small bowel. In the first case, the adenocarcinoma was in the region of the ligament of Treitz, and in the second case, it was in the mid-ileum.

Case No. 55,957. A 67-year-old white male was admitted to the hospital on January 29, 1957, presenting as his chief complaint upper-abdominal distress, especially after eating a heavy meal. He indicated that the painful area was about midway between the xiphoid and the umbilicus, and slightly to the left of the midline. The pain frequently caused nausea, but only occasionally was there any vomiting—when he twisted his body toward the right or bent over to pick up a heavy object. The pain occasionally radiated directly through the body and into the back. The patient noticed more difficulty when he was eating solids than when he was consuming semi-solids or liquid foods. There was no history of weight loss, and between meals he felt perfectly well, except for an occasional dull, aching pain in the above-described location.

X-ray studies prior to admission to the hospital were essentially negative, except for a slight indication of compression of the third portion of the duodenum in the region of the ligament of Treitz and a definite enlargement of the duodenal loop.

On physical examination, the patient was found to be a rather heavy-set individual. Indeed his obesity made accurate examination rather difficult. A definite mass was palpable, however, in the lower epigastric region, and pressure upon it caused pain to radiate through to the patient's back. The gastric analysis was essentially normal, with normal acid contents. There were no other symptoms to give any reason for the patient's trouble. He denied having any diarrhea or melena, but he said that during the immediately preceding two weeks he had cut down on his diet in order to avoid distress after eating, and that for that length of time or a little longer he had tended to be constipated.

At surgery, a very questionable mass was palpable in the terminal duodenum in the region of the ligament of Treitz, and it would probably have been left except for the two tiny areas on the serosal surface of the bowel which suggested the possibility of a malignancy. A malignancy, it was felt, would also explain the large mass at the base of the mesenteric vessels. This mass was resected, and a primary anastomosis was done. The pathologic examination revealed that the neoplasm was a poorly differentiated adenocarcinoma, grade 3, of the duodenum, with an extension through the submucosa into the muscularis propria and without evidence of regional lymph node metastases.

The patient's postoperative course was uneventful, and he was discharged in good condition nine days after the operation.

Case No. 66,327. A 66-year-old white male was admitted to the hospital on November 12, 1956, after having had abdominal cramps, with intermittent diarrhea, for the preceding two months. He had noticed something wrong in his abdomen for about six months. There was no nausea or vomiting, and there were no sharp pains, but he had lost 25 pounds during the preceding three months. His appetite was good, and he denied having had any bloody or tarry stools.

Physical examination revealed a well nourished white male showing some evidence of recent weight loss, but not acutely ill. The general findings were essentially negative, except for the abdomen. On palpation, a rather large, indistinct nodular mass was found to involve the greater part of the abdominal cavity.

The laboratory studies were essentially within normal limits. The cephalin flocculation test was

negative, and the Bromsulfalein test was negative, the blood urea nitrogen was 16 mg. per cent, and the icterus index was 8 units. The hemoglobin was 92 per cent, there were 10,850 leukocytes, and the stool examination was 2+ for occult blood.

The patient was taken to surgery on November 15, 1956, and an exploratory procedure revealed that the condition was inoperable. There were extensive metastatic lesions throughout the abdomen and an area approximately in the mid-ileum presenting findings of almost complete obstruction due to a mass involving the bowel. It was felt that nothing would be gained by resection, and a bypass procedure was therefore done along with a biopsy of the mass from the mesentery.

The postoperative course was uneventful, and the patient was discharged on November 22, 1956. The pathologist reported that the lesion was an adenocarcinoma, rather poorly differentiated, grade 3.

CARCINOIDS

Carcinoids, a very interesting group of neoplasms, were first described by Nicholas Kultschitzky in 1897 and Schmidt in 1905. The cell structure is derived from the chromaffin cells of the intestinal tract which are found in greatest numbers in the terminal ileum. The debate as to whether these tumors are benign or malignant has yet to be settled, but recent studies have shown that they either are malignant or may become so.

The universal characteristic of these neoplasms is the striking yellow color of the tumor mass. These tumors may be single or multiple, and they may remain innocuous for a period of months or years before causing obstruction. In general, the obstruction from carcinoids is due to a secondary encroachment on the lumen of the bowel resulting from the enlargement of the mass or from a distortion of the bowel wall between masses of tumors. Carcinomas, contrastingly, are usually of the napkin-ring type, encompassing the entire circumference of the bowel. The spread of carcinoids is essentially outside of the lymphatic chain and follows the blood vessels, with secondary invasion of the lymph nodes. Anemia is usually not present in the early cases, probably because these tumors do not ulcerate early. In this respect carcinoids differ markedly from other small-bowel tumors. Malignant carcinoids usually grow slowly, and even in the presence of metastases, a resection of the involved bowel is indicated.

Case No. 25,870. A 43-year-old white male was admitted to the hospital on May 17, 1950, with the complaint that throughout the preceding year he had experienced a crampy, colicky pain, especially after eating a large meal. It had gradually grown worse, and at the time of admission he began to have severe burning pain throughout the abdomen, and bloating associated with bouts of vomiting and diarrhea. A weight loss of between 15 and 20 pounds had occurred during the preceding three months. The stools were occasionally dark colored, but not tarry.

The physical examination revealed a well nourished and developed white male presenting a dusky appearance. The laboratory findings included a hemoglobin of 106 per cent, a red count of 6,000,000, and a white count of 14,850, with 84 segmentals, 12 lymphocytes and 4 monocytes. The urine was essentially negative. An abdominal examination revealed tenseness, with considerable voluntary splinting. In relaxation, a rather indefinite mass could be felt in the mid-abdomen. X-rays with barium were non-contributory.

The patient was taken to surgery on May 27, 1950, and a segment of the mid-ileum measuring approximately five feet in length was found to contain numerous yellowish, umbilicated lesions, with large and numerous mesenteric nodes, but without liver involvement. A long section of bowel—about six feet—was removed, with a generous portion of mesentery, leaving a number of inaccessible preaortic glands behind.

The postoperative course of the patient was uneventful, and he was ready for discharge on the eighth postoperative day in good condition. At his last visit, early in 1957, he had gained 23 pounds, and he was asymptomatic.

LYMPHOSARCOMAS

Lymphosarcomas of the small bowel may be primary in the bowel or mesenteric nodes. They occur more commonly in the small intestine and especially in the terminal ileum where the lymphoid tissue is most abundant. At first, the spread is by way of the lymphatics. Beyond this point, there is no set course, and spread may then continue through the blood stream. In the advanced stage, this tumor is firm and bluish-white on section. The typical cell is a large lymphocyte. There is no characteristic change in the peripheral blood. Usually, the only node involvement is by metastasis.

A preoperative diagnosis is difficult to make in early cases. Lymphosarcomas are usually found in association with other difficulties for which exploration seemed indicated. In some patients who seek medical help tardily, obstructive symptoms may, of course, be immediately suggestive of tumor. Barium studies early in the disease oftentimes are negative, and late in the disease when obstruction is impending, they are contraindicated. Wide resection may extend the patient's life for as much as 15 years after operation. These are almost the only tumors of the small bowel that will respond to x-ray therapy.

SUMMARY

1. Neoplasms, benign or maligant, are quite rare in the small bowel.

2. Approximately half of such lesions are benign.

3. Radiation is of little or no value in tumors of the small bowel, other than lymphosarcomas.

4. Early diagnosis through careful history-taking and physical examination is the only hope in cases of small bowel tumor, benign or malignant. Prompt surgical management must follow.

5. One should ever be alert to the possibility of a small-bowel tumor in a patient who presents a general appearance of secondary anemia that fails to respond promptly to ordinary medical management, and in one who presents melena or occult blood in the stool.

6. Exploration shcuild not be delayed until a mass becomes palpable. Other symptoms are usually enough to suggest the presence of a small-bowel tumor.

REFERENCES

1. Ackerman, L. V.: Cavernous hemangiomata of small and large bowel. Am. J. Cancer, **30**:753-757, (Aug.) 1937.
2. Boyce, F. F., and McFetridge, E. M.: Primary sarcoma of intestine, with report of additional cases and with special reference to lymphosarcoma and malignant melanoma. Internat. S. Digest, **17**:131-146, (Mar.) 1934.
3. Carter, R. F.: Carcinoma of jejunum; report of three cases. Ann. Surg., **102**:1019-1028, (Dec.) 1935.
4. Coffey, R. C.: Pancreato-enterostomy and pancreatectomy. Ann. Surg., **50**:1238-1264, (Dec.) 1909.
5. Cruickshank, B., and Cunningham, A. W. B.: Carcinoid tumour; review of 17 cases. Edinburgh M. J., **56**:196-205, (May) 1949.
6. Dickson, J. A., Parkhill, E. M., and Kiernan, P. C.: Large retroperitoneal metastasis from so-called carcinoid of small intestine. Surg. Gynec. & Obst., **82**:675-681, (June) 1946.
7. Ebert, R. E., Parkhurst, G. F., Melendy, O. A., and Osborne, M. F.: Primary tumors of duodenum. Surg. Gynec. & Obst., **97**:135-139, (Aug.) 1953.
8. Ewing, James: Neoplastic Diseases: A Treatise on Tumors. Third Edition. Philadelphia, W. B. Saunders Company, 1928.
9. Finney, J. M. T., and Finney, J. M. T., Jr.: Papilloma of duodenum. Ann. Surg., **93**:294-300, (Jan.) 1931.
10. Gosset, A., and Masson, P.: Tumeurs endocrines de l'appendice. Presse Méd., **22**:237-240, 1914.
11. Grimes, O. F., and Bell, H. G.: Carcinoid tumors of intestine. Surg. Gynec. & Obst., **88**:317-325, (Mar.) 1949.
12. Hellström, J.: Primary cancer of jejunum and of ileum. Acta Chir. Scandinav., **62**:465-482, 1927.
13. Horsley, J. S.: Carcinoma of jejunum and ileum. J.A.M.A., **117**:2119-2123, (Dec. 20) 1941.
14. Kultschitzky, N.: Zur Frage über den Bau des Darmkanals. Arch. f. mikr. Anat., Bonn, **49**:7-35, 1897.
15. Lahey, F. H.: Carcinoma of small intestine, with report of case each of jejunum and of ileum. Ann. Surg., **62**:428-432, (Oct.) 1915.
16. Maydl, Carl: Ueber den Darmkrebs. Vienna, Braumüller, 1883.
17. Mayo, C. W.: Malignancy of small intestine. West. J. Surg., **48**:403-407, (July) 1940.
18. Meckel, J. F.: Über die Divertikel am Darmkanal. Arch. f. d. Physiol., **19**:421-453, 1809.
19. Moore, R. M., and Schmeisser, H. C.: Benign tumors of small intestine. South. M.J., **27**:386-393, (May) 1934.
20. Mrazek, R. G., Jr., Godwin, M. C., and Mohardt, J.: Carcinoid tumors: clinical and pathologic study of 27 cases. Surg. Gynec. & Obst., **96**:661-673, (June) 1953.
21. Nothnagel, Hermann: Die Erkrankungen des Darms und des Peritoneum. In: Specialle Pathologie und Therapie, vol. 17. Vienna, Alfred Hoelder, 1903.
22. Oberndorfer, Siegfried: Karzinoide Tumoren des Dünndarms. Frankf. Tdschr. f. Path., Wiesb., **1**:426-432, 1907.
23. Pridgen, J. E., Mayo, C. W., and Dockerty, M. B.: Carcinoma of jejunum and ileum exclusive of carcinoid tumors. Surg. Gynec. & Obst., **90**:513-523, (May) 1950.
24. Raiford, T. S.: Carcinoid tumors of gastro-intestinal tract (so-called argentaffine tumors). Am. J. Cancer, **18**:803-833, (Aug.) 1933.
25. Raiford, T. S.: Tumors of small intestine. Arch. Surg., **25**:122-177, (July), and 321-355, (Aug.) 1932.
26. Rosser, C.: Carcinoid (neurocrine) tumors of rectum. Surg. Gynec. & Obst., **93**:486-490, (Oct.) 1951.
27. Schmidt, J. E.: Beiträge zur normalen und pathologischen Histologie einiger Zellarten der Schleimhaut des menschlichen Darmkanales. Arch. f. mikr. Anat. Enteomech., Bonn, **36**:12-40, 1905.
28. Strohl, E. L., Diffenbaugh, W. G., and Sarver, F. E.: Surgical significance of small bowel tumors. Surg. Gynec. & Obst., **93**:209-214, (Aug.) 1951.
29. Whipple, A. O.: Observations on radical surgery for lesions of pancreas. Surg. Gynec. & Obst., **82**:623-631, (June) 1946.
30. Wyatt, T. E.: Angentaffine tumors of gastro-intestinal tract; report of three cases, one with distant metastases. Ann. Surg., **107**:260-269, (Feb.) 1938.

Early Diagnosis of Cancer of the Head and Neck

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CANCER OF THE HEAD and neck accounts for 14 per cent of the total cancer mortality in the United States, excluding deaths from brain tumors.[1] This rate seems to be quite high, if we take into consideration that carcinoma of the head and neck is predominantly an accessible disease, and in the majority of patients should be diagnosed early.

It is well established in cancer therapy that the earlier the diagnosis, the better the results. Therefore, the mortality rate from cancer of the head and neck should be lower in proportion to its incidence than is the rate from cancer in inaccessible regions such as the lungs, gastrointestinal tract, liver, etc.

This discussion will be directed to the types of carcinoma of the head and neck, as we see them in our clinic. But before we start with that main subject, I believe it is in order for me to say a few words about the management of carcinoma in general.

We are of the opinion that a physician should not take a biopsy from an intraoral tumor unless he has the facilities and training to follow the complete treatment of the case. After a biopsy has been taken, a local secondary infection frequently develops which increases the size of the tumor and causes secondary infectious adenopathy. These two occurrences are misleading as to the size of the tumor—a factor which is of great importance, especially if the tumor is to be treated by x-ray therapy. The adenopathy is very likely to be considered metastatic, and this tends to complicate the treatment.

CARCINOMA OF THE NASOPHARYNX

Carcinoma is the type of tumor most frequently

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seen in the nasopharynx, the average duration of symptoms prior to diagnosis being about one year. This delay results from the difficulty in examining the nasopharynx and from the clinician's being misled by distant signs and symptoms. The symptomatology produced by the growth of the tumors is related to the anatomy and physiology of this area.

The most frequent local symptoms of nasopharyngeal tumors are nasal obstruction, postnasal discharge, epistaxis and intermittent tubal obstruction with different types of otitis media.

In an investigation of 79 cases of nasopharyngeal malignancies, it was found that 74 had undergone some type of operation on the head and neck for relief of the symptoms produced by the malignancy, but in no instance had the underlying etiology been recognized.[2]

It is obvious that certain criteria should be formulated, the recognition of which should demand a complete investigation of the nasopharynx. If one of the previously described local symptoms of nasopharyngeal malignancy persists or progresses, it is essential that the patient be given a careful examination.

1. Cervical metastasis is often the earliest sign of malignancy in this area.[3] The spread first occurs into the lateral retropharyngeal glands. In most instances, one or both sides of the retromandibular group are then involved. In others, the spread occurs directly into the deep cervical, the jugular and the spinal accessory nodes.

Cervical metastasis occurs in about 75 per cent of these cases.

In our clinic we feel that unilateral cervical adenopathy in the adult is almost always malignant, and is usually metastatic from a primary lesion in the upper respiratory or alimentary tract. We do not adopt a diagnosis of primary carcinoma of the cervical nodes unless a repeated search has first been made of the entire intraoral and nasopharyngeal areas.

2. Visual disturbances and headaches may indicate a nasopharyngeal malignancy. Because of the close proximity of the tumor to the superior orbital fissure and brain stem, the third, fourth, fifth and sixth cranial nerves are frequently affected, bringing about diplopia, strabismus, ptosis or trigeminal neuralgia. The abducens nerve is the one most frequently involved. When the growth encroaches upon the region of the jugular foramen, paralysis of some or all of the lower four cranial nerves and cervical sympathetic nerves may be observed.

The diagnosis is made by posterior rhinoscopy, nasopharyngoscopy and palpation of the nasopharynx. The diagnosis is confirmed by biopsy. X-rays of the skull, which are taken routinely in this type of case, are of great prognostic importance.

Malignant growths in this area are highly radiosensitive, and irradiation appears to be the treatment of choice. If bone is not involved, the five-year survival rate is from 35 to 40 per cent. If bone is involved, the five-year survival rate is reduced to 10 per cent. By comparing these figures, one can see how important early diagnosis can be in this type of carcinoma.

CANCER OF THE LARYNX

There is probably no anatomic form of carcinoma in which delay in diagnosis is more carefully to be avoided than in malignant tumor of the larynx.[4] There are only three important symptoms in cancer of the larynx, namely, hoarseness due to cancer of the vocal cords (intrinsic), and either persistent pain and discomfort on swallowing, or the appearance of cervical metastasis in cancer of the extrinsic larynx.

An analysis of large numbers of cases of cancer of the cords reveals that the majority of patients with persistent hoarseness will consult a physician within six weeks. If cancer is suspected and proper investigative steps are taken, the true diagnosis will of course be made in all instances. Analysis will also show that when the physician first consulted for hoarseness does not examine the vocal cords, but only prescribes local medication (gargles), there is an average delay of more than 10 months before the true diagnosis is made. Since the patient has been assured that his hoarseness is not of serious significance, he tends to procrastinate for weeks or months before insisting on relief. It is worth emphasizing both to the members of the medical profession and to the public that persistent hoarseness (over two weeks) is almost always serious, and that a cause for it must be found.

In growths of the extrinsic larynx, the early symptoms (minimal dysphagia or the appearance of cervical metastasis) are less impressive than those in cancer of the cords, but nevertheless, the patient usually consults his physician within two weeks after their onset. When the patient complains of such symptoms, the physician should realize that the disorder may be serious. An examination of the throat should be made by a doctor who is experienced in this procedure and in diagnosis of ailments of the throat. The appearance of an enlarged cervical node—usually the patient calls it a "lump" or a "knot in the neck"—should always raise the question of metastatic cancer and call for a thorough search of the mouth and all parts of the pharynx and larynx for the primary source of the tumor.

Eighty-five per cent of carcinomas of the larynx are located on the vocal cords. The lymphatic supply of the vocal cords is very poor, and for that reason cordal cancer does not metastasize until quite late.

When this cancer is located in the middle third

of the vocal cord, the operation of choice is a laryngo-fissure which consists of dividing the thyroid cartilage in the midline so as to provide access to the larynx, and removing the entire vocal cord on the affected side. With this type of operation, our five-year survival rate ranges from 85 to 90 per cent. Postoperatively, the patient will be able to live a normal life, and will have an intelligible though somewhat hoarse voice.

When the cancer has extended posteriorly and has frozen the vocal cord, the treatment of choice is laryngectomy. With this type of operation, we obtain 64 to 71 per cent five-year survivals. However a certain number of patients are deprived of speech.

When the carcinoma has extended above or below the cords, or if palpable nodes are present, the patient should have a laryngectomy and a radical neck dissection. Statistics show that 45 to 50 per cent survive for five years or more.

Comparison of these different percentages serves to accentuate the importance of early diagnosis in this type of carcinoma.

SUMMARY

The purpose of this paper has been to remind physicians of the signs and symptoms of cancers of the head and neck that are frequently mis-diagnosed, and to put emphasis upon a careful examination, regardless of how benign the presenting symptoms may seem.

Only through early diagnosis can we improve the prognosis in patients afflicted with such a devastating disease.

REFERENCES

1. Ward, G. E., and Hendrick, J. W.: Diagnosis and Treatment of Tumors of the Head and Neck. Baltimore, Williams & Wilkins Co., 1950.
2. New, G. B.: Syndrome of malignant tumors of nasopharynx. J.A.M.A., **79**:10-14, (July 1) 1922.
3. Hara, J. H.: Maglignant tumors of nasopharynx. AMA Arch. Otolaryng., **60**:440-452, (Oct.) 1954.
4. Martin, H.: Cancer of head and neck. J.A.M.A., **137**:1366-1376, (Aug. 14) 1948.

A Surgeon's Stand on Thyroid Disease

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IN THE PAST 15 YEARS a number of questions have arisen regarding the operative treatment of thyroid disease. Following the appearance of the antithyroid drugs such as the thiouracil derivatives, a feeling spread through the medical profession that operative therapy was no longer needed for hyperthyroidism. But it was found rather soon that no such expectation had been warranted, and the drugs came to be used in preparation for operative treatment—to make surgical therapy safer for the patient. Then with the advent of radioactive iodine, it again was said that thyroidectomy was no longer necessary in thyroid disorders, and that medical treatment alone was adequate. More recently, conservative surgical procedures in thyroid cancer have been advocated, along with the use of thyroid extract.[1]

It is my purpose to designate the time at which surgical therapy is indicated in diseases of the thyroid gland and in cancer of that organ, what type of operative therapy should be performed, and why.

THYROTOXICOSIS

The approach to the patient with thyrotoxicosis has undergone considerable change during the past 10 years. It has become recognized that the interests of a patient with Graves' disease due to hyperplasia of the gland can best be served by treatment with radioactive iodine. The use of this material will result in a euthyroid state without operation, and it will, therefore, eliminate the hazard of surgical treatment and its possible complications, including recurrent nerve paralysis, hemorrhage or hypoparathyroidism. The results are usually as good as with operative treatment, and the cost and inconvenience to the patient are usually less.

However, radioactive iodine should not be used in a pregnant woman, for it may destroy the fetal thyroid gland. This is especially likely after the first trimester of pregnancy. Radioactive iodine should not be used in children or adolescents because of the possible carcinogenic effects of the therapeutic doses, about which little is known. In addition, the possible effect upon the germ plasm and its resultant mutation is unknown.

In a child with Graves' disease, the patient should be treated by means of the antithyroid drugs such as propylthiouracil or methimazole to create a euthyroid state. If, while on one of these drugs, the patient develops any evidence of skin eruption, sore throat, fever, headache, malaise, leukopenia or agranulocytosis, the drug should immediately be stopped. Fortunately, the incidence of reactions is very low. The daily dose of propylthiouracil is 200 mg. in a small gland, and up to 1000 mg. in a large gland. The very toxic multi-

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nodular gland will require the larger dosage. The dosage of methimazole is one tenth that of propylthiouracil, ranging between 20 and 100 mg. daily. (Aside from the thyroid function tests, the most reliable clinical signs that the patient has attained a euthyroid state are continued weight gain and a pulse rate which remains below 90 per minute.) When a euthyroid state has been reached, the patient should be placed on Lugol's solution for 10 to 14 days. Lugol's solution will produce an involution of the gland, diminishing its vascularity, and making it firm and no longer friable. Then he should be operated upon, and not more than a remnant should be left, usually not more than five per cent of the original gland.

In a patient in the last trimester of pregnancy, these thiouracil compounds should never be used. They create a thyroxine deficiency in the mother which stimulates her pituitary. This, in turn, secretes excess thyrotropic hormone. This hormone is transferred through the placenta to the fetal thyroid. The mother, in turn, absorbs all the thyroxine she can get from the thyroid of the fetus, and thus, since she is a parasite on her own fetus, she produces a cretin. The use of thiouracil early in pregnancy will have little effect on the fetus, for the fetal gland does not commence to function till the second trimester and has a low oxygen demand. It is only in the last trimester, when striking differential changes take place in the fetus, that the gland becomes very active and the drug produces marked changes in the fetal gland.

Recurrent hyperthyroidism several years following thyroidectomy is not rare. In subjecting such a patient to a second operative procedure, one encounters much greater risks of damage to the recurrent laryngeal nerves and the parathyroid glands. For that sort of patient, radioactive iodine is usually the treatment of choice, for the results will be as good as those from operative therapy and the hazards will be less.

MULTINODULAR GOITER

In the patient who confronts the physician with a multinodular gland, there are four indications for surgical therapy: (1) toxicity, (2) pressure symptoms, (3) suspicion of cancer and (4) unsightliness.

In the treatment of a patient with a multinodular goiter who has hyperthyroidism, it is a well-established fact that the use of radioactive iodine is usually ineffective. After repeated large doses of I^{131} the hyperthyroid state often remains or recurs. It is well, therefore, in a patient with this type of lesion, to initiate therapy with an antithyroid drug till a euthyroid state has been attained, follow with Lugol's solution, and then treat the lesion by means of surgery.

If a patient with a multinodular goiter has pressure symptoms, a roentgenogram of the chest in the posterior-anterior and lateral views is mandatory. Such symptoms are represented by difficulty in breathing, coughing, difficulty in swallowing, choking sensations, or at times symptoms of superior vena cava compression in the form of dilated collateral superficial venous channels over the anterior chest wall. Often, mediastinal extension of the mass is displayed, and the displacement of the trachea is demonstrated. In all of these patients, removal of the thyroid masses by subtotal thyroidectomy produces striking to complete relief of symptoms.

If a hard mass, rapid or sudden growth, enlarged nodes in the neck, or paralysis of the vocal cords has led to a suspicion of cancer, there should be no question concerning surgical therapy. The possibility of a cancer's arising in the multinodular goiter varies, depending upon the figures which one may choose to accept. They range from a low of 4.2 per cent to a high of 10.1 per cent (Table 1). At any rate, there is no question that cancer can and does occur in such glands, and the mere possibility is another reason for operation.

A patient may have cosmetic reasons for wishing to have the mass removed. This is a reasonable desire. If the surgeon has strong feelings about performing surgery for such a purpose, he can justify his compliance with the patient's request on the basis of the three reasons previously stated: he will prevent hyperthyroidism from developing, he will prevent pressure symptoms from occurring, and he will prevent cancer from developing in the thyroid.

In performing the thyroidectomy, one can do either a subtotal thyroidectomy, leaving a small residue of gland on either side, or a total lobectomy on one side, leaving the residue on the other side. Ordinarily, no more than three or four grams of tissue should remain.

SINGLE NODULE

The dangerous presence of a single nodule in the thyroid has been pointed out repeatedly in recent

TABLE 1

FREQUENCY OF CANCER IN SOLITARY AND MULTINODULAR GOITERS

Author	*Location*	*Year*	*Per Cent in Solitary Nodule*	*Per Cent in Multinodular Goiter*
Cole *et al.*[5]	Chicago	1948	24.4	9.8
Goldman[6]	San Francisco	1948	15.6	4.2
Cope *et al.*[7]	Boston	1949	19.0	10.1
Crabtree and Hunter[8]	Ann Arbor	1950	24.3	7.54
Twente[9]	Jackson, Miss.	1956	24.4	9.9

years. The incidence of cancer in such a lump ranges from 15.6 per cent to 24.4 per cent (Table 1), depending upon which author is quoted. It is important to note that no one has ever reported an incidence of 0.0 per cent in a series of patients with single nodules.

It is certainly true that one may palpate a discrete nodule and at operation find that is was not a single tumor but, rather, was one nodule in a multinodular gland. At other times, it represents an isolated area of colloid goiter undergoing degeneration, or a gland with thyroiditis, or one enlarged lobe of the thyroid. Occasionally, also, in a patient with a small multinodular goiter, a hemorrhage may take place within a nodule, producing a sudden increase in size and, sometimes, pain and tenderness.

Because cancer may develop in a single nodule or because such a nodule is already a cancer, operation should be recommended. By physical examination it is impossible to tell whether a nodule in an early lesion is benign or malignant. The low incidence of postoperative mortality and morbidity far outweighs the risk of prolonged observation of a patient with such a lesion. On the contrary, it is radical and dangerous treatment for a physician to postpone surgical exploration in a patient with a single nodule.

The surgical approach to a single nodule will be discussed under Cancer of the Thyroid.

CANCER OF THE THYROID

Cancer of the thyroid occurs with maximum frequency in persons between the ages of 20 and 60 years. In general, metastases roughly parallel the occurrence rate of the disease.

A great number of disputes have arisen regarding the proper treatment of this condition, primarily because in many instances a patient with known papillary or follicular cancer of the thyroid, with metastases, has gone through an extended life span just as if no cancer had been present.[1] Since, if death results from cancer of the neck, it is often due to a direct invasion of the trachea, esophagus or mediastinum, it also has been stated that neck dissection is unimportant.

Before discussing the surgical attack, it is important for us to trace the lymphatic flow of the thyroid gland and consider how it affects the surgery. From the isthmus of the gland, it goes to the mediastinal nodes, or upward to the node lying above the isthmus. From the lower parts of the lobe, it drains into the paratracheal nodes behind the thyroid. The superior pole drains to the nodes of the lateral neck. The lymphatic drainage cannot be treated by *en bloc* dissection, since there is no continuity of tissue planes between the thyroid and the remainder of the neck. One must approach the problem much as he does when he is undertaking to remove a cancer of the lower lip, with the jaw lying between the neck and the lip. In other words, there is no point in removing the prethyroid muscles unless they have been directly invaded. If one does not desire to remove the sternocleidomastoid muscle in a neck dissection for thyroid cancer, there is no need for his doing so. Removing it only makes the procedure easier. To extend the procedure into the mediastinum is logical, yet extremely radical insofar as results are concerned. At present it has the same status as mediastinal dissection in surgery for cancer of the breast. We must not, of course, accept the viewpoint that leaving cancer in the neck does no harm. It can, and if one is able to remove it, he should. I therefore suggest a method of approach on a rational basis.

In the case of a single well-encapsulated nodule, a total lobectomy of the involved side should be carried out. Even if the nodule appears benign, this policy should be pursued, for far too often a benign lesion proves to have malignancy within its center. Lobectomy will provide adequate therapy for the lesion, and it should be made routine, since frozen section is a notoriously inadequate means of determining whether or not the nodule is malignant.

If the pathologist reports that the lesion is a cancer with no breakthrough, and if the lesion is well encapsulated, with no nodes palpable in the neck, nothing further should be done immediately. If nodes are visible or palpable, however, a biopsy should be taken of the largest or most suspicious of them, to see whether cancer is present. If none is present, nothing further needs be done, but if cancer is present in the nodes, a radical neck dissection of the involved side and a total thyroidectomy should be carried out.

If, at the time of operation, it is quite evident that one is dealing with a malignancy that has extended beyond the gland either by direct invasion or metastasis, a total thyroidectomy and radical neck dissection are necessary. The reasons for a total thyroidectomy are as follows. (1) It is quite possible that the cancer is multifocal in origin, and there is no other way of dealing with it adequately. (2) Any possible contralateral spread is prevented. (3) If the lesion proves to be susceptible to the uptake of radioactive iodine, it will take up I^{131} more rapidly and avidly if the thyroid gland has been totally removed, inasmuch as the competing source for I^{131} has been eradicated. Thus the metastases, no matter where they are, may be more effectively handled. (4) It makes possible the removal of any involved nodes lying behind the thyroid.

I^{131} therapy is sometimes effective, and it should be considered for every patient with this disease. It appears that some cancers of the thyroid are dependent upon the anterior pituitary thyrotropic hormone. Thyroid extract given by mouth acts to inhibit the production of this hormone by the pituitary, and consequently may sometimes prove an effective means of managing the cancer. The

thyroid extract appears to be most effective in those instances in which radioactive iodine is effective,[3] and it is used as an adjunct to this therapy. But it should be tried even if I^{131} is ineffective. Thyroid extract is usually given in a dosage of 0.12 to 0.2 Gm. (2-3 grains) daily. Occasionally it is possible to stimulate assimilation of radioactive iodine in carcinoma of the thyroid through the use of one of the thiouracil derivatives such as propylthiouracil, or by the administration of pituitary thyrotropic hormone.

If the patient later develops nodes on the opposite side of the neck, in spite of radioactive iodine therapy or thyroid extract, a radical neck dissection should be performed. In the case of a young person, the sternocleidomastoid muscle should not be removed on the second side (if it has been removed on the first), in order to prevent gross deformity.

Any child who presents a nodular goiter should be operated upon. The incidence of cancer in children with nodular goiter is extremely high, and thus a nodule in the thyroid of a child must be considered cancer until it is proven otherwise (Table 2).

TABLE 2
FREQUENCY OF CANCER IN NODULAR GOITER OF CHILDREN

Author	*Location*	*Per Cent*
Ward[10]	San Francisco	40.0
Winship[11]	Washington, D. C.	50.0

There are some[4] who feel that the type of cancer should determine the method of therapy, and that because certain types such as diffuse adenocarcinoma, giant-cell carcinoma or undifferentiated carcinoma have such poor prognoses, no attempt at cure should be made. What is sometimes forgotten is that various types of cancer of the thyroid can frequently be observed on microscopic examination of tissue from a single patient. It is my contention that if the possibility of cure exists at all, an attempt should be made, provided it does not jeopardize the patient's life. No treatment of cancer of the thyroid can be based exclusively upon the microscopic picture.

External irradiation therapy as a postoperative measure is unnecessary if an adequate operation has been performed. It should be used only for grossly inoperable lesions. Its effectiveness, even then, may prove very disappointing.

THYROIDITIS

It appears likely that our original concept of thyroiditis—notably that Hashimoto's disease and Riedel's struma are separate entities—is not true. It is likely that these form a part of the picture of degenerative changes seen in the thyroid gland.[12, 13] In most instances, Hashimoto's disease represents a part of the microscopic picture of Graves' disease (without toxic symptoms) with lymphoid overgrowth and epithelial atrophy. Most cases do not progress to myxedema. In an occasional case, the condition progresses to severe atrophy and fibrosis, with resulting myxedema. This actually is the picture of bilateral Riedel's struma, and is seen in older patients. Most instances of Riedel's struma occur in younger age groups, are unilateral and represent an inflammatory progression of subacute thyroiditis. These patients have no thyroid dysfunction, and usually do not progress to myxedema. This view of the pathology of thyroiditis is not universally accepted.[14]

Only the rare case of subacute thyroiditis with pain in the thyroid gland—often referred to the external auditory canal and accompanied by an enlarged, tender gland and a low-grade fever—is operated upon, and surgery is performed only to establish a diagnosis. The disease is characterized by remissions and is usually self-limited, but occasionally it progresses to more scarring and to Riedel's struma, as previously described. If symptoms are severe, it can be treated by means of external irradiation or steroid hormones.

However, chronic thyroiditis often presents a problem. The diagnosis is often obscure. The gland may be hard. It may feel nodular. At times it is diffusely enlarged. Sometimes the patient complains of difficulty in breathing or swallowing, or of a vague sense of constriction in the throat. The gland may become so large and the pressure symptoms so great that even though the diagnosis is made, operation is indicated. At other times, the lesion cannot be differentiated from carcinoma.

The prethyroid muscles are ordinarily adherent to the gland at operation and can be separated only with difficulty and with marked bleeding. The gland may be diffusely enlarged, firm to hard, and symmetrical. In other instances, an actual nodule may be present—the sole site of the microscopic change.

If a biopsy is taken and the diagnosis is proved, two courses are open. The gland may be divided at the isthmus and a portion of the gland on either side removed—an isthmusectomy. The prethyroid muscles are then attached to the margins of the trachea over the ends of the remaining thyroid tissue in each lobe. In this manner the anterior surface of the trachea remains bare, thereby preventing formation of scar tissue between the two separated lobes, and later constriction of the trachea. If the gland is not too vascular, and the procedure therefore is not too difficult, a more satisfactory method is the performance of a lobectomy on one side. This will completely prevent tracheal compression and will provide considerable relief to the patient.

SUMMARY

A rational approach to diseases and cancer of

the thyroid gland has been presented. It is based upon the present-day concepts of the usefulness of radioactive iodine, antithyroid drugs and thyroid extract, and upon the anatomic and pathologic character of each disease.

Surgical therapy still has a large role to play in the management of thyroid disorders, and can be undertaken with greater safety than in the days prior to the introduction of these adjuncts.

REFERENCES

1. Crile, G., Jr., Suhrer, J. G., and Hazard, J. B.: Results of conservative operations for malignant tumors of thyroid. J. Clin. Endocrinol., **15**:1422-1431, (Nov.) 1955.
2. Crile, G., Jr.: Fallacy of conventional radical neck dissection for papillary carcinoma of thyroid. Ann. Surg., **145**:317-320, (Mar.) 1957.
3. Maloof, F., Vickery, A., and Rapp, B.: Evaluation of various factors influencing treatment of metastatic thyroid carcinoma with I^{131}. J. Clin. Endocrinol., **16**:1-27, (Jan.) 1956.
4. MacFee, W. F.: Surgical treatment of carcinoma of thyroid gland, with special reference to metastasis. S. Clin. North America, **33**:361-387, (Apr.) 1953.
5. Cole, W. H., Slaughter, D. P., and Majarakis, J. D.: Carcinoma of thyroid gland. Surg., Gynec. & Obst., **89**:349-356, (Sept.) 1949.
6. Goldman, L.: Experiences with thyroidectomy in thyroid clinic. J. Clin. Endocrinol., **8**:781-788, (Sept.) 1948.
7. Cope, O., Dobyns, B. M., Hamlin, E., Jr., and Hopkirk, J.: What thyroid nodules are to be feared? J. Clin. Endocrinol., **9**:1012-1022, (Oct.) 1949.
8. Crabtree, H. W., and Hunter, D. C., Jr.: Carcinoma of thyroid, clinicopathologic study. AMA Arch. Surg., **67**:175-186, (Aug.) 1953.
9. Twente, G. E.: Surgery of nodular thyroid gland. Am. Surgeon, **22**:1014-1018, (Oct.) 1956.
10. Ward, R.: California Cancer Commission Studies: Cancer of thyroid. Calif. Med., **68**:170-172, (Mar.) 1948.
11. Winship, T.: Carcinoma of thyroid in children. Tr. Am. Goiter A., Springfield, Ill., Charles C Thomas, 1951, pp. 364-389.
12. Levitt, T.: The Thyroid. A Physiological, Pathological, Clinical and Surgical Study. Baltimore, Williams & Wilkins, 1954.
13. Warner, E. D.: Personal communication.
14. Hazard, J. B.: Thyroiditis; review (part ii). Am. J. Clin. Path., **25**:399-426, (Apr.) 1955.

Sero-Mucoid Otitis Media

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WATERLOO

WITH THE ADVENT of chemotherapeutic drugs and antibiotics in recent years, there has been an alarming increase in the insidiously dangerous, stubbornly resistant and sometimes progressive[1] middle-ear deafness that is associated with tubotympanic serous or mucous otitis media. This disease is a problem of increasing proportions because, though it can occur in any age group, it most frequently affects children, and because a youngster infrequently calls attention to a defect in his hearing. Thus, in too many instances, the pathology in the middle ear goes unrecognized until inattention, poor discipline, low grades and sometimes speech defects stimulate medical consultation. If allowed to progress unchecked, the final result in many cases is a permanent, irreversible conductive deafness.

WHAT IS SERO-MUCOID OTITIS MEDIA?

As its name implies, this entity consists of an accumulation of serum and/or mucoid material in the tympanum and eustachian tubes. Often the mastoid cells are also partially or completely filled with serum or mucus or both. Regarding the nature of the fluid in the middle ear, there are differences of opinion. King[2] discusses this aspect of the matter in his "Thesis on the Condition of Fluid in the Middle Ear." In addition, Politzer has said that the quality of the fluid has an important influence on the course of this condition, and that the serous secretions are absorbed more rapidly than are the tough, syrupy, adhesive mucoid masses. Hoople mentions that serous fluid may change into mucous fluid.

ETIOLOGY

The etiology of sero-mucoid otitis media has remained basically unchanged, but there are new influences on the course of infections of the middle ear, and these influences are increasing the frequency of its occurrence. I refer to chemotherapy and antibiotic therapy when used freely and without the time-honored myringotomy and tympanic aspiration procedures, and attention to associated allergy, sinus disease, nasopharyngeal pathology or hormone disturbances.

As everyone knows, the majority of "earaches" are seen and cared for by the family doctor, who may or may not refer the case to an otologist, depending upon the progress of the disease and upon his awareness of developing complications. Many times, dependence for success in the treatment of the illness is placed entirely on chemotherapy or antibiotic therapy, or both. No attempt is made at adequate drainage (myringotomy) of the middle ear. Hospitalization is frequent, and for several days, in most instances, there are temperature, toxicity, pain and general discomfort. The tympanic membrane may or may not rupture spontaneously, but if it does and the perforation is adequate for drainage, symptoms then disappear, drainage ceases, the perforation closes if damage has not been too extensive, and hearing returns to normal. If drainage is inadequate, however, the pathology in the tympanum resolves itself much more slowly and often incompletely, and in consequence there is an accumulation of fluid, with resultant irreversible adhesive damage and conductive deafness.

As in infections anywhere else in the body, an

exudate is produced, except in the early catarrhal stages, and it may be serous or suppurative. As a rule, the suppurative types of infection are perhaps more active, and rupture of the tympanic membrane occurs before the drug therapy can halt the progress of the disease. Regardless, in the face of inadequate drainage there is an accumulation of fluid in most cases. It may be thin or serous, suppurative, or in later stages thick and mucoid. In time, it may be absorbed or may drain into the nasopharynx, but if neither absorption nor drainage occurs, a gradual thickening and organization takes place, with the result referred to above. Obviously, adequate drainage and ventilation plus specific drug therapy are both indicated. The patient obtains immediate relief subjectively and objectively, hospitalization is infrequently indicated, the tympanum is relieved of its accumulated fluid —by aspiration if necessary—and hearing returns rapidly to normal.

Less dramatic and perhaps even more damaging are the repeated mild earaches for which children are given short courses of antibiotic therapy, resulting in apparent recovery. If, as frequently happens, the antibiotic merely masks smoldering tympanic pathology, an accumulation of fluid will occur, and conductive deafness will result. If both ears are involved, an observing parent will notice the difficulty, but if only one ear is involved, the hearing loss may go unnoticed. Fortunately, the tympanic cavity seems able to tolerate this fluid for long periods of time before irreversible changes take place, and I have removed thick, tenacious material which, from the history, must certainly have been trapped in the area for months.

Accumulation of fluid in the middle ear also occurs frequently with no warning to the patient or physican other than a hearing loss. Here again, in the case of children, the deficiency is discovered by the teacher, perhaps being brought to light by audiometric screening studies. Or it may be found by an observing parent. The accumulation of fluid in the tympanum occurs slowly and with no particular increase in intratympanic pressure, and therefore no pain. Adults will experience a feeling of fullness or numbness in the ear, and a change of position will sometimes vary the acuteness of hearing. At times, there may be a sensation of a change in the position of the fluid accompanying a movement of the head. Often the patient will notice bubbling noises in his ear when he blows his nose, and he will complain of an inability to "pop open" his ear by swallowing. Repeated inflations of the eustachian tube will often fail to improve the hearing or relieve symptoms. In this type of patient, as in the others whom I have mentioned, the basic treatment is an adequate drainage of the tympanum. Without it, recovery will be slow and often incomplete.

PHYSICAL FINDINGS

The physical findings in sero-mucoid otitis media consists of a conductive type deafness of variable degree and certain abnormal appearances of the drum membrane. In the early stages of the disease when the fluid is serous, the drum may appear normal and translucent. In such cases, one can detect the presence of serum only by observing a changing light reflex on the fluid level as he exerts positive and negative pressure with a Siegle's otoscope, or by observing bubbles of air in the tympanum following inflation. At times, a definite fluid level can be seen, appearing as a tiny hairline curving across the drum. This hairline will often change position when the head is slowly moved forward and backward. The fluid may be translucent, or it may be pigmented because of cellular breakdown, with a resultant yellowish or straw-colored appearance of the tympanic membrane. If the disease process has been especially active and has followed an acute episode or repeated mild attacks, the drum will be dull and lusterless and a thickening will be noticeable. The drum may show a rosy tinge, especially in Shrapnell's region, evidencing activity of the infective process, or it may exhibit various shades of a dull-red, grayish, gelatinous appearance, evidencing a more or less dormant and stabilized state.

TREATMENT

The treatment of this condition can be divided into control of contributing factors and direct attack upon the pathology in the middle ear itself. As regards the former, the examiner pays particular attention to the condition of the nasopharynx and tubal orifices, notes the presence or absence of active sinusitis, and does not forget that allergic rhinitis is quite frequently the underlying cause and that if it is not controlled it will prolong the disease and precipitate recurrences. Hypometabolism,[3] with its mucoproteinous edema of the nasal mucosa, nasal obstruction and tubal insufficiency, must be kept in mind. It can be readily diagnosed and treated, with quite satisfactory results.

Some cases of tympanic fluid, especially those of a serous nature, will respond to repeated inflations. However, in dealing with persistent cases one must remember one fundamental thing: adequate removal of fluid. This, one can accomplish in the great majority of patients, young and old, through the use of a sublimation of equal parts of phenol, menthol and cocaine crystals as a topical anesthetic. A thin film is applied to the drum membrane and allowed to remain for at least five minutes, after which length of time very little pain will be experienced when the incisions are made. This local anesthetic avoids the risks always associated with general anesthesia, it is far less expensive for the patient, and it is much faster and easier for the otologist to use.

In my hands, aspiration of the tympanum is best carried out by means of two small incisions in the drum membrane, one at seven o'clock and one at four o'clock. Through one incision—and often from one and from the other by turns—the serum or mucus is aspirated by means of a Kos aspirating

tip. When suction is applied to one of the openings, the other admits air, thus preventing the development of a negative pressure in the tympanum as the secretion is withdrawn. Thus a more complete aspiration of the middle ear is facilitated, and there is less discomfort for the patient. When the exudate is of a watery serous type, the task is accomplished quite easily, but in many cases the amount of fluid is surprisingly large, and much time and patience are required. Several applications of the suction tip, at intervals of 30 to 60 seconds, will help to assure a full withdrawal. Undoubtedly, the middle ear refills because the antrum and the cells of the mastoid process have served as a reservoir for the serum.[1] The presence of this reservoir also accounts for the frequent so-called recurrences of the disease. In actuality, complete drainage was never accomplished.

As a rule, a thorough aspiration of fluid, followed by tubal inflation and then reaspiration if necessary, will give an immediate subjective and objective improvement in hearing, and the patient's satisfaction is most gratifying. If the contributory factors are under control, further therapy is usually limited to one or two tubal inflations at two- or three-day intervals. Approximately 25 per cent of patients will reaccumulate fluid in the tympanum, and the process will have to be repeated. Still a smaller percentage will be even more persistent and will require the insertion of a polyethylene tube (Armstrong drain[4]) through the myringotomy opening. This tubing* is 1 mm. in diameter and 1.5 to 2.0 cm. in length, depending upon the length of the canal. It is beveled on the end to facilitate its insertion into the tympanum. After placement, no further care is needed except for periodic checks to make sure it maintains position and does not become obstructed by dried exudate. The tube is non-irritating and may be left in place for two or three weeks. When it is removed, the perforation closes spontaneously, leaving a normal-appearing drum membrane.

With thick gelatinous fluid in the middle ear, the problem is handled in the same way, but here even more patience is required before a clean tympanum can be obtained. The mucus is very tenacious and glue-like, and will strongly resist the pull of the suction tip. A larger opening in the drum is often necessary in the removal of such material, and care must be exercised lest the membrane be split by a too forceful or a too rapid delivery. In my experience, this type of exudate is found most frequently in children, and I explain it on the basis of disease duration. Adults will seek relief of symptoms immediately, but as has been previously stated, it is sometimes months before the difficulty is noted in a child. By that time, the fluid has become concentrated and viscous, and the dampening of hearing acuity has become even more severe.

* Plastic B-D tubing, 1 mm. in diameter, supplied by Becton & Dickinson Co., Rutherford, New Jersey.

Irradiation therapy is valuable for this disease. As a rule, a total of 300 r is given to one or to each ear in divided doses. I prefer the use of external irradiation, for by this method the tympanum, eustachian tube and nasopharynx all receive the effect of therapy, whereas the radium applicator affects only a small (4 to 5 mm. in diameter) area in the immediate vicinity of the applicator tip. It is not advisable to use this treatment as a substitute for adequate surgical removal of lymphoid tissue, but if the difficulty persists after the surgery, then irradiation is indicated. It can be, and is, given at any age level, but of course it should be administered by a competent radiologist. In a series of 1,000 cases, Vaughn[5] found no evidence of any early or late damage of any kind that had resulted from such treatment.

CASES

Case 1. R. M. was a white man 32 years of age. He was seen one month after developing an acute rhinitis, followed by a persistent left-sided nasal discharge and a stuffy left ear. The hearing in that ear was made worse when he tilted his head forward upon his chest. There was no pain or aural discharge.

Examination revealed purulent exudate in the left side of the nose originating in the middle meatus. On transillumination, the left antrum was dark. The left drum was dull grayish-red, with no bulging. The nasopharynx was clear of contributing lymphoid tissue. Audiometric studies revealed a bilateral high-frequency loss, severe in 4000 and 8000 cps, and with Rinne positive tests in those frequencies. In addition, the left ear had a loss in the frequencies below 4000 cps averaging 15 decibels in Rinne negative tests. With 5 per cent topical cyclaine anesthesia, a left antral puncture and irrigation was performed, and the result was a return of 2 cc. of mucopurulent exudate. On aspiration of the tympanum, with phenol-menthol-cocaine topical anesthesia, considerable serous exudate was removed. Thereafter, hearing returned to normal, excepting in the 4000-8000 cps range. The antrum was irrigated five days later, and again after another five-day interval. On that second occasion, the return was clear. The hearing remained at the pre-infection level, and the tympanum rapidly returned to normal.

Case 2. P. B., a five-year-old white girl, was examined one year ago because of a hearing loss that had persisted for four or five months. The difficulty had begun with an attack of acute otitis media following a cold, and the ear had drained for several days. Antibiotics had been given. There was no speech defect. The youngster did not have repeated colds or sore throats, and had no history of allergy.

On examination, the tonsils and adenoids were not unusual, but the drum membranes were dull and yellowish-gray, with no bulging. Free-field audiometric studies exposed a 25 decibel loss of hearing bilaterally. Under topical anesthesia, a

bilateral paracentesis was performed, serous exudate was removed by means of a Kos aspirating tip, and then tubal (Politzer) inflation was performed. The hearing immediately following the aspiration was 5-10 decibels above normal bilaterally, and has remained so to date. An adenotonsillectomy is not contemplated unless further trouble develops.

Case 3. M. L., a six-year-old white male, was seen because of a fluctuating hearing loss that had persisted for months, interspersed by repeated earaches. Many antibiotics had been given. The last episode of acute infection had occurred three weeks prior to the examination. An adenotonsillectomy had been performed by the family physician about two years earlier. The youngster was still a mouth-breather, and he snored while sleeping. Significant physical findings included enlarged, obstructive adenoids, bilateral dull grayish-red tympanic membranes, a 20 decibel loss of hearing in both ears, and Rinne negative tuning-fork tests in all frequencies.

Under general anesthesia, an adenoidectomy was performed, and considerable thick, mucoid exudate was removed from both tympanic cavities through small myringotomy incisions.

Postoperatively, the nasal obstruction had ceased to exist. The hearing returned to normal and has remained so to date.

Case 4. E. G., a white male 30 years of age, was first seen complaining of a cold and diminished hearing in both ears for one week. On examination, he was found to have a receding rhinitis, right serous otitis media with a fluid level, and a straw-colored eardrum. The left tympanum was felt to be free of fluid, but there was a definite eustachian salpingitis, left. There was a large lateral pharyngeal band of lymphoid tissue on either side of the pharnyx extending upward to the torus, more pronounced on the left.

The cold was treated by the usual methods, the left tube was inflated, and the right tympanum was aspirated of straw-colored fluid under topical anesthesia. Antibiotics were administered by mouth, and the patient returned three days later with an improvement in his general condition, but again with diminished hearing bilaterally. Examination revealed a bilateral serous otitis media. Both tympani were aspirated, and the eustachian tubes were inflated. The patient was treated twice during the next week by inflation, and he gradually improved, but he returned in two weeks with an exacerbation of symptoms in the right ear. Sinus x-rays at that time were normal. Deep irradiation therapy to both ears was begun, and the radiologist gave the dose that is usually prescribed for lymphoid hyperplasia in this condition. The right drum was reopened and a small polyethylene tube drain was inserted, left in place for three days and then removed. One week later the ear was dry, the perforation was closing, and subjectively the hearing was satisfactory. One month later, the perforation had closed and the hearing was normal.

Case 5. H. B., a white woman 56 years of age, was seen for long-standing deafness and for treatment of a radical left mastoid cavity which had been completed many years previously. When first examined, the patient was wearing a hearing aid.

The positive findings were allergic rhinitis, bilateral nasal polyposis and suppurative ethmoiditis, and a chronic serous otitis media, right, with a dull-gray drum membrane and 20 decibels loss of hearing. The radical left mastoid cavity was in fair condition, and there was a 65 decibel loss of hearing in the left ear.

Under topical anesthesia, the right tympanum was aspirated of considerable serous exudate, and the right eustachian tube was inflated. Afterward, the hearing in the right ear was normal, and the patient no longer needed her hearing aid. Intradermal allergy tests were negative, and the history suggested nothing specific.

Over the next several months, the patient was given a non-specific allergy therapy, a bilateral intranasal ethmoidectomy and polypectomy were performed, and on several occasions the right ear was aspirated of serous-type exudate. The nose cleared nicely, but the right tympanum persisted in refilling with fluid. X-ray therapy was administered to the right ear, but though it cut down the frequency of recurrences, the difficulty still persisted. A simple mastoidectomy was considered, but first it was decided that drainage and ventilation with a polyethylene tube should be attempted. Accordingly, one year after her first visit, this drain was inserted and left in place for three weeks. When the tube had been removed, the perforation closed spontaneously within a week, and the tympanum has since remained free of fluid.

SUMMARY

1. There has been an alarming increase in the incidence of sero-mucoid otitis media and its associated conductive deafness.

2. The basic etiology of this disease remains unchanged, but the increase in incidence can be attributed to our increased dependence on antibiotics and chemotherapy, and by a lack of attention to diagnosis and time-honored ventilation and drainage of the middle ear.

3. Treatment of this condition includes some or all of the following: (a) removal or control of contributing pathologies; (b) ventilation and drainage of the middle ear, mastoid cells and eustachian tube by means of tubal inflation, aspiration and, in persistent cases, drainage through the drum by means of a 1 mm. vinyl tube drain; and (c) deep irradiation therapy applied externally in doses of 100-300 r.

REFERENCES

1. Tamari, M., and Weinstein, L.: Chronic serous otitis media. Eye, Ear, Nose & Throat Month., 32:387-389, (July) 1953.

2. King, J. T.: Condition of fluid in middle ear; factors in-

fluencing prognosis in 56 children. Ann. Otol., Rhin. & Laryng., 62:496-506, (June) 1953.

3. Hilger, J. A.: Otolaryngologic aspects of hypometabolism. Ann. Otol., Rhin. & Laryng., 65:395-413, (June) 1956.

4. Armstrong, B. W.: New treatment for chronic secretory otitis media. AMA Arch. Otolaryng., 59:653-654, (June) 1954.

5. Vaughn, J. H.: Thirty years' experience with radiation therapy of pharyngeal lymphoid tissue. Eye, Ear, Nose & Throat Month., 35:787-789, (Dec.) 1956.

6. Hardy, W. G., and Bordley, J. E.: Observations from controlled study on effect of nasopharyngeal irradiation in group of school age children. Ann. Otol., Rhin. & Laryng., 63:816-826, (Sept.) 1954.

7. Bell, H. L.: Recent advances in management of deafness. Eye, Ear, Nose & Throat Month., 36:34-38, (Jan.) 1957.

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Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 72-YEAR-OLD white carpenter was admitted to the University Hospitals complaining of "pneumonia" of three months' duration. The onset of his illness had been characterized by chills, fever, weakness and a cough productive of thick white mucus. The initial diagnosis made by his family physician had been pneumonia, but that conclusion was not based on an x-ray examination. The ensuing course of treatment included penicillin and aureomycin. The patient suffered increasing weakness and weight-loss, and at the time of his admission, he was unable to get out of bed. One week before admission, ankle edema had appeared and digitalis had been given. The patient had had a chronic cough for nearly 20 years.

Physical examination revealed a blood pressure of 110/60 mm. Hg., a pulse rate of 132 beats per minute and a respiratory rate of 34 per minute. The patient was very thin, and appeared both chronically and acutely ill. The sclerae of the eyes were slightly icteric. White plaques were present over the tongue and soft palate. The trachea had shifted to the right, but no adenopathy was noted. Examination of the chest revealed a scoliosis of the dorsal spine, dullness over the right apex, decreased breath sounds and moist crepitant rales in the bases. The heart was normal. The abdomen was nontender, slightly distended and tympanitic. Bowel sounds were present, and the soft organs were not palpable. There was 3+ pitting edema of the lower extremities. The prostate and rectum were normal, and there was no blood in the stool. The body temperature on admission was 103°F.

An x-ray film of the chest was interpreted as showing "diffuse fibrotic changes throughout both lung fields, a healed scar in the left apex, and evidence of thickening of the pleura on the left in the apex and costophrenic angle. There was irregular aeration in the left base consistent with peribronchiolar infiltration. The heart and great vessels were within normal limits."

Sputum examinations were negative for tuberculosis by smear and guinea pig inoculation, but they did grow hemolytic Staphylococcus aureus, Aerobacter aerognes, Hemophilus influenzae and beta hemolytic Streptococci.

The x-ray examinations of the stomach, duodenum and colon were interpreted as normal. An electrocardiogram was normal.

Examination of the blood revealed a hemoglobin of 9.5 Gm. per 100 ml., a red blood cell count of 3,180,000 per cu. mm., and a white blood cell count of 10,500 per cu. mm., with a normal differential. Bile and urobilinogen were present in increased amounts in the urine. The serum bilirubin was 1 mg./100 ml. The bromsulphalein retention in the plasma was 40 per cent in 45 minutes. The sedimentation rate was 95 mm. per hour. The cholesterol was 64 mg./100 ml. The spinal fluid and serum electrolytes, sugar and proteins were normal.

The patient's temperature rose daily to 101 or 102°F., and the cough remained productive. On the fourteenth hospital day, a peritoneoscopy was done, and 150-200 ml. of purulent fluid with a specific gravity of 1.009 was removed. The liver was smooth, pale and somewhat enlarged, but without evidence of metastases. A biopsy of the liver was taken. On the seventeenth hospital day, a supraclavicular node was discovered and biopsied. The patient's treatment consisted mainly of supportive care and blood transfusions. In addition, penicillin and streptomycin were given for two weeks, and then were replaced by Mycostatin and Chloromycetin. He died on the twentieth hospital day.

CLINICAL DISCUSSION

Dr. Walter M. Kirkendall, Internal Medicine: This fascinating patient, a 72-year-old gentleman, had had a cough for 20 years. Then suddenly, as far as I can tell, it began to get worse. His illness began with chills and fever, and it later developed into "pneumonia." Prominent features of his illness were weakness, and a thick, white mucoid sputum. He became progressively weaker, and soon was bedfast. Ankle edema developed, and neither penicillin nor chlortetracycline relieved his symptoms. When the patient arrived at this Hospital, he was emaciated, chronically and acutely ill, and febrile. He was dyspneic and had a rapid heart rate. Slight icterus was noted, although at that time the van den Bergh was 1.6 mg. per cent, a reading that suggests the patient may have had more icterus before he came to the hospital. The x-ray findings have been described in some detail in the protocol, but

I think we should have a radiologist comment upon them here.

Dr. Carl L. Gillies, Radiology: The first films were taken in 1955, and the second ones in February, 1956. The older films show pleural thickening and some peribronchial fibrosis. Comparison of the old and the new films shows that thickening took place during the interval of one year. The appearance is that of bronchiectasis.

Dr. Kirkendall: Did the films show a cavity?

Dr. Gillies: Well, a small cavity—a bronchiectatic cavity, not an abscess cavity. Also, it was evident that the pleura had thickened.

Dr. Kirkendall: I was most impressed by an area of rarefaction in the right upper lobe. But continuing with our review of the protocol, I note that a culture and a smear for tuberculosis were negative. Apparently no skin test was done. Although hemolytic Staphylococcus aureus, Aerobacter aerogenes, Hemophilus influenzae and beta hemolytic Streptococci were cultured from the sputum, we have no more than slight grounds for drawing a conclusion about the patient's primary difficulty. I think these are the usual flora of an individual who has been on antibiotics for some time. The remainder of the findings in the protocol are mainly negative ones.

It is of some interest that x-ray revealed no abnormality in the patient's heart.

The next page of the protocol reveals a huge group of laboratory findings, but when one goes over them in some detail, he finds very little of significance. The patient had a hypochromic anemia. His white count was not very remarkable, when one considers his fever. There was a small amount of bile in the urine, a finding suggestive of biliary obstruction. The serum albumin was decreased. There was a mild elevation of the van den Bergh, the PSP was significantly increased, the alkaline phosphatase determinations were up, and most of the other liver-function tests were abnormal. Prothrombin time was increased, and total cholesterol was low. Such a low cholesterol value, in my experience, is a sign of severe liver disease, and in this case it was somewhat out of proportion to the results of the other liver-function tests. The sedimentation rate was greatly elevated, as one might have expected. I believe that these findings are consistent with the premise that this man had both parenchymal and obstructive damage to his liver, and that certain functions of the liver were severely depressed. We can say that his liver as well as his lungs were involved in his disease process.

The patient's course in the hospital is of some interest to me. In the first place, he had a spiking fever that continued until death. He was peritoneoscoped, and two biopsies were taken, but the results of neither were reported. After peritoneoscopy, he was placed on penicillin and streptomycin. I presume that by this time there was a good indication of the diagnosis. Then, in spite of the fact that from the protocol one might think the patient had tuberculosis, the ward physicians felt he didn't, and gave him Mycostatin and chloropheni-col. Then he died.

I prefer to think that this man's disease was primarily in the lung, with a secondary liver involvement. I think the lung disease was primary because of the patient's initial complaints. One should realize that it could have been the other way around, but I shall be arbitrary.

The lung diseases which should receive consideration can be grouped into three categories. First, there are the infections. Second, there are the neoplasms. Third, there are the miscellaneous vascular disorders and the toxic diseases like pneumoconiosis. As far as the infections are concerned, I think tuberculosis is the one which must be seriously considered, and I shall discuss it in some detail later. Sarcoidosis, if one wishes to classify it as an infection, can be disposed of quickly, for it is not ordinarily a disease of old age. The patient had no evidence of hyperglobulinemia, and he had little evidence of skin or bone manifestations. Other granulomatous diseases such as blastomycosis or coccidioidomycosis seem to me unlikely, primarily because of lack of exposure in the case of coccidioidomycosis, and in the case of blastomycosis because he had had no antecedent skin disease. Histoplasmosis, we shall leave until later.

Of the other infections, unresolved pneumonia can produce this picture. The x-ray could have been one of a person who had had repeated pulmonary infections. Organisms from one of those infections might have set up residence in the lung and caused such a progressive disorder. The flora found in the bacterologic study would certainly be consistent with such a disease and theory. Later in this man's illness, he developed adenopathy, and unless one believes that he had septicemia as well as a pulmonary infection, he would have trouble explaining the nodes and the liver involvement on the basis of a purely pulmonary disease. For the time being, I don't believe that a simple, unresolved pneumonia such as we see following lobar- or bronchopneumonia, or a chronic, primary, atypical pneumonia was the cause of this man's difficulty. It would have been helpful if we had had a blood culture.

We haven't disposed of at least two infections—tuberculosis and histoplasmosis—and I shall return to them. Of the tumors, bronchogenic carcinoma with spread to the liver might explain this case. The patient's chest x-rays might be consistent with this diagnosis, although one usually sees carcinomas starting in one area. Originally, when I had read the protocol, I thought there was a good chance that this man had alveolar cell carcinoma, with the lesions starting simultaneously in many areas of the lung. I still think it a possibility, and I shall come back to this entity for further discussion. Other tumors and lymphomas of the lung can be disposed of, for there was no splenomegaly or leads in these directions. I arbitrarily refused

to consider metastatic lesions from the liver into the lung because of the symptoms at the onset.

Another entity which I think should be discussed is Wegener's granulomatosis. It is a new disease, as far as I am concerned, and it has been diagnosed in relatively few individuals in this area. Yet, it is one which clinicans must think of in instances of fever and undiagnosed granulomatous disease of the lung. It is usually associated with arthritis, infections or ulcerations in the upper respiratory tract, and kidney disease. Hematuria has usually been associated with renal involvement. Its course is reported to be rapid, and patients usually die within three to nine months. The decline is characterized by fever and/or secondary infection. The general course of the disease is much like that of periarteritis nodosa, from which it can be distinguished pathologically. Because of the rarity of Wegener's granulomatosis and because this patient had relatively little involvement of the kidneys and upper respiratory tract, I don't believe that Wegener's granulomatosis was the cause of this patient's trouble.

Other uncommon or unlikely causes of pulmonary diseases are beryllium poisoning, pneumoconiosis, aspiration pneumonia and pulmonary disease secondary to multiple, small emboli to the pulmonary vascular bed. There was no history of a heavy exposure to industrial pulmonary irritants, and for this reason I tend to dismiss pneumoconiosis and beryllium toxicity as causative factors. There is likewise no history of chronic mineral oil ingestion or any other reason to suspect chronic aspiration pneumonia. Although it is distinctly possible that pulmonary emboli might have caused this patient's difficulty, the chance is quite remote, for there is no evidence that the patient had a neoplasm residing in his body, nor did he appear to have a blood dyscrasia or remarkably enlarged veins. I gave no serious consideration to amyloid of the lung, other collagen vascular diseases, interstitial fibrosis of the lung, or various pulmonary diseases that might arise from the inhalation of toxic materials, for the history and physical examination gave us no leads in those directions. The same is true for liver disease and secondary pulmonary involvement from amebiasis.

Despite the facts that this patient had a negative smear for tuberculosis, that a guinea pig inoculated with his sputum did not develop tuberculosis, and that he was not treated for tuberculosis, I believe the possibility of miliary involvement by the tubercle bacillus must be considered as a possible diagnosis. It is reasonably common in men of his age. The fact that he had had long-standing pulmonary symptoms might provide support for the diagnosis, and it is known that anemia and a low white blood cell count may be seen after dissemination of that organism.

It is sometimes difficult to find the tubercule bacillus in patients with disseminated tuberculosis. However, I tend to discredit this diagnosis primarily because I believe that if the rarified area in the lungs were due to tuberculosis, the organism would have been demonstrable in the sputum.

I seriously entertained the possibility that this patient had alveolar cell carcinoma. My chief reason for doing so was that thick, mucoid sputum is a characteristic sign of that disease. It can usually be diagnosed quite readily, for diagnostic cells appear in the sputum. Although alveolar cell carcinoma may arise in one or several areas of the lung, most of the patients whom I have seen with the disease have had widely disseminated lesions throughout both lungs. Women and men are usually affected equally, and fever and secondary infections are major complications.

The other granulomatous disease which must be seriously considered as the cause of this patient's trouble is histoplasmosis. I did not seriously consider this disorder primarily because it is uncommon as a generalized problem. However, disseminated histoplasmosis could cause most of the symptoms that this man exhibited, and since it is endemic in this part of the United States, and since no methods of diagnosing it had been used in this particular case, we cannot rule it out completely. Because of its rarity and because so little attention was paid to it during this patient's clinical course, I suspect that it was not present.

The icterus was probably secondary to involvement by miliary granulomata or secondary neoplasm, and the edema can be explained as having been secondary to portal venous obstruction, pylephlebitis or an occlusion in the portal system secondary to a new growth. There is little evidence to support the view that the patient might have had cor pulmonale secondary to pulmonary artery hypertension. The patient apparently had chronic bronchitis and pulmonary emphysema, but these were not his major problems.

In summary, I believe that disseminated tuberculosis or histoplasmosis and alveolar cell carcinoma are the most likely explanations of this patient's fatal disease. Some sort of unresolved pneumonia, with secondary staphylococcal bloodstream invasion, is a remote possibility. Of this group, I was attracted to alveolar cell carcinoma until I saw the x-rays. Now, I believe a granulomatous process of some sort is the most likely diagnosis.

Dr. Paul M. Seebohm, Internal Medicine: Thank you very much, Dr. Kirkendall. I think it may now be the appropriate time to tell you what actually went on in the minds of the doctors who cared for this patient. The diagnosis was not really known until the eighteenth hospital day, and in consequence the treatment bears little relationship to the diagnosis. There is one point that I should like to make first, however. The house and visiting staff were very much concerned about the diagnosis during the first two weeks. The doctors thought the patient had an infection, and because of his debilitated appearance, they were under the impression

that the infection was secondary to a generalized neoplastic process. With this in mind, they decided upon a peritoneoscopy, but when it was performed a neoplasm was not found.

At this point, the senior ward clerk chided me: "Now what would you do? We've done everything, and the results are negative." I suggested that the patient needed another good history-taking and a physical examination. He agreed and had Dr. Bedell see the patient the next time he made rounds, but he didn't go over the patient again himself. Dr. Bedell examined the patient in an unprejudiced manner and found a supraclavicular lymph node that had been missed by everyone else or had developed during the course of the patient's hospitalization. It was biopsied, and the diagnosis was made. Dr. Carter will give us the pathologic findings.

Dr. John R. Carter, Pathology: As far as the lymph node is concerned, the diagnosis was histoplasmosis. There were two principal pathologic processes in this patient. He did have generalized histoplasmosis involving principally the lungs, spleen, lymph nodes (especially the mediastinal and abdominal ones), the liver and the adrenals. In addition, he had a generalized infection with hemolytic Staphylococcus aureus which had resulted in necrotizing bronchopneumonia and suppurative cholangiohepatitis. It was thought that the former disease process had brought the patient to the hospital, but perhaps the latter was more instrumental in causing his death.

I might just mention a few things about the distribution of the lesions before talking about the slides. Both lungs were involved by a miliary granulomatous process, the lesions of which varied in diameter from a few millimeters to more than a centimeter. It was grossly obvious, too, that there was a great deal of difference in age among those lesions. Some were very old, some were estimated to be a few months old, and some were of quite recent origin. The upper lobe of the right lung was more seriously involved than any other portion, but the lesions were scattered throughout both lungs. The spleen weighed 350 Gm., and it was riddled with soft, gray-white granulomatous lesions. The liver, particularly the portal areas, had small abscesses, in addition to the granulomatous lesions, the result of the hemolytic Staphylococcus aureus infection.

The ages of the lesions are quite interesting, I think, in view of what has been said about them in the literature. The variations in histologic appearance may be numerous, and the specific diagnosis can be very difficult, unless one can demonstrate the organisms as we were able to do in virtually every tissue that I have mentioned. At times, the histologic picture can even resemble the sarcomatous form of Hodgkin's disease, and certainly the various granulomatous diseases of which tuberculosis might be considered a prototype may produce this type of reaction.

In a slide from one of the old areas in the right apical region of the lung, one could see what appeared to be an old tuberculoma type of lesion that was composed of old, caseous, necrotic material with a thin zone of calcium surrounded by a dense zone of hyalinized scar tissue. Organisms were found in several areas. I should like to call your attention to one rather important finding. Not only was there a difference in the ages of the lesions, but one could actually see a recent breakdown of some of the older ones. One could see some old hyalinized tissue with some rather active inflammation adjacent to it. Most of the cells were large reticulo-endothelial cells containing histoplasma. Because of such areas, it was our opinion that the process was probably a reactivation of an old infection, rather than a reinfection.

The Grocott stain showed the histoplasma organisms to be budding yeast forms that usually vary in diameter between one and five microns, and average about three or four. Another section of lung showed areas of coagulation necrosis and suppuration. Suppurative inflammation usually is not a part of the picture one sees in the tissue reaction due to histoplasma. No histoplasma organisms were found in such areas. Instead, hemolytic Staphylococcus aureus was cultured from those areas.

Still another slide showed the type of reaction found in the gray, mottled areas in the spleen. It was an area that resembled the sarcomatous form of Hodgkin's disease. There were grotesque monocytic cells, some of them multinucleated, separated by a delicate reticulum. There were very few lymphocytes and plasma cells.

These two cell types are not very conspicuous features of the reactions that one sees in histoplasmosis. Rather, the tremendous hyperplastic, proliferative type of reaction of the reticuloendothelial cells are characteristic, and histoplasma organisms are usually found in the cytoplasm of these cells. As a matter of fact, it has been pointed out by a number of writers that the cytoplasm of these large cells is a particularly good culture medium for the organisms.

There were large areas in which we were unable to demonstrate any histoplasma organisms, even with special stains. In a section of liver that also had a rather mottled appearance, the surface was granular, and in the portal areas there were the same soft, gray-white miliary lesions. Histologically, in that portal area, one could see large mononuclear and bizarre reticulo-endothelial cells, some of which contained histoplasma organisms. In other portal areas, there was very little, if any, reticulo-endothelial hyperplasia. Instead, there was an acute inflammatory response indicating that two basic disease processes were present in the liver. In addition, there was considerable distortion of liver architecture, with scarring in some places. Some of the granulomatous lesions were quite old, and were characterized principally by sclerosis and fibrosis of granulomatous tissue. Others were cellular and of recent vintage.

In studying this case, I looked at a slide from a patient whom I autopsied some 10 years ago, and who also had a generalized form of this disease. It, too, showed large reticulo-endothelial cells. The tremendous amount of cytoplasm was noteworthy. That individual was 92 years of age, and without exaggeration I can tell you that he had histoplasma lesions and organisms from his lips to his anus, including diverticula and appendix.

Sometimes the organisms will stain positively with an acid-fast medium, though there are other organisms in the same field that do not take that particular stain. Most of the organisms can be demonstrated very readily with the periodic acid Schiff, Gridley and Garcott stains. Silver stains are particularly satisfactory for this purpose.

Student: Were the histoplasmin organisms found in the liver biopsy?

Dr. Carter: I don't know. The lymph node biopsy showed them, but I didn't see the liver biopsy.

Dr. G. R. Zimmerman, Pathology: There were none in the liver biopsy.

Student: Were the granulomatous lesions large enough to have been seen on peritoneoscopy?

Dr. Carter: Probably not. The capsule was thickened and opaque, and I doubt very much that the miliary lesions could have been seen with the peritoneoscope. They were obviously striking on cut section, but they were not so large as those in the spleen. The slight granularity of the liver, however, might very well have been apparent—a granularity which, in this instance, was partly due to the scarring that had resulted from old lesions. The portal areas were pretty well scarred in places, and there was distortion of the architecture.

I find that I neglected to mention the ascites and jaundice in this patient. The ascites, as Dr. Kirkendall has suggested, is probably the result of disruption of the architecture of the liver in such cases as this.

Dr. Seebohm: Do you think that pathologists are diagnosing this disease more commonly than in past years, or is the incidence increasing?

Dr. Carter: That is a difficult question to answer. It is quite possible that some cases could have been overlooked in the past, for in old lesions—particularly in old caseous lesions—the organisms may be very difficult to demonstrate with ordinary, routine stains. In this particular case, as a matter of fact, we didn't see them with an H & E stain. With special stains, some of which have been developed within the last four or five years, they are quite apparent. Lesions diagnosed as constituting tuberculosis 20 years ago may well have been histoplasmosis in some instances. It is true, though, that in a very active histoplasma infection one almost invariably can find organisms in the cytoplasm of the reticulo-endothelial cells, but in the old, chronic lesions, one might not find them. Thus, I think that there are more actual diagnoses being made.

In this connection, you may be interested in the prevalence of the disease in Iowa. I am sorry that I can't be of much help to you. According to Dr. Borts, the statistics are not very good. As Dr. Kirkendall has mentioned, we are in an endemic area, and the exposure to spores of histoplasma is very great. So far as the clinical disease is concerned, the actual incidence in Iowa is not definitely known.

Dr. Ian Smith, Internal Medicine: Dr. Godfrey has been counting the cases in this Hospital and has found that there have been 28 in the last 12 years.

Dr. Seebohm: From what Dr. Godfrey has found out, does the incidence appear to be increasing or decreasing?

Dr. Smith: There has been a slight increase in the last two or three years.

Staff Man: Was a skin test done in the case that we have been discussing?

Dr. Seebohm: A skin test was done, but it is not mentioned in the protocol. It was of no value, since it was done just prior to the patient's death, and as it turned out there wasn't sufficient time in which to secure a reading.

Dr. A. P. McKee, Bacteriology: The Department of Bacteriology received numerous antemortem specimens on this patient. They included sputum, blood culture, spinal fluid, urine and peritoneal aspiration. No request was made for fungus study on any of them, but we were asked to examine for Mycobacterium tuberculosis. A hemolytic Staphylococcus aureus was isolated from a number of these specimens, including one of urine and two of sputum.

We received a number of specimens of tissue from autopsy. From them, we isolated a hemolytic Staphylococcus aureus from specimens of node, liver, lung, and exudate from peritoneum, trachea and pleural cavity. All of these specimens were negative for fungi except the spleen and tracheal exudate. From these was isolated Candida albicans. Histoplasma capsulatum was isolated only from the bone marrow. Inasmuch as the Pathology Department discovered the histoplasma organism in specimens of nodes, spleen, liver and lung, we were curious as to why we had had no success in culturing it from all of these same materials. As we examined the bacteriologic results from these various specimens, we found that Pseudomonas aeruginosa was isolated from all of the specimens in which we had failed to find Histoplasma capsulatum. However, P. aeruginosa was not present in the bone marrow specimen, and from it we did isolate Histoplasma capsulatum. Of the several organisms that we isolated from the pathologic specimens, P. aeruginosa is the only one that is known to produce a potent broad-spectrum antibiotic. Thus, we hypothesize that it was that antibiotic which prevented us from isolating Histoplasma capsulatum from the specimens that showed the organism in section.

In my opinion this case was one in which sever-

al specimens of serum might well have been submitted to the laboratory for complement fixation tests against Histoplasma capsulatum. Positive complement fixations against this fungus are not uncommon in the course of histoplasmosis. A high titer—or preferably a rising titer—against the organism in a patient certainly should make one suspect the disease.

Antibodies usually appear within a few weeks after the first signs of infection and reach a titer of 1:40 to 1:60 or higher. About 10 per cent of the proved cases have not had a positive complement-fixing antibody titer. Contrariwise, a positive skin test means only that the patient at some time or other has come into contact with the organism. A single positive reaction isn't a certain indication that he has an active infection, but a rising complement fixation titer means that an active process is present.

Serologic investigation of some sort is important in a number of fungus diseases. Complement fixation, agglutination and/or precipitation studies may help in the following: actinomycosis, blastomycosis, coccidioidomycosis, candidiasis, cryptococcosis, histoplasmosis, sporotrichosis and nocardiosis. It would seem advisable, therefore, to send clotted blood to the laboratory for fungus serology whenever there is a pneumonia of unknown etiology and whenever systemic granulomatous infections are suspected.

SUMMARY OF NECROPSY FINDINGS

Two principal pathologic processes were present: (1) generalized histoplasmosis with involvement of lungs, spleen, lymph nodes (mediastinal and abdominal), liver and adrenals; and (2) infection with hemolytic Staphylococcus aureus causing a necrotizing bronchopneumonia and suppurative cholangiohepatitis. It was thought that the former disease had brought the patient to the hospital, but that the latter was more instrumental in causing his death.

The granulomatous lesions of histoplasmosis varied considerably in age and in appearance. The older lesions were characterized by caseation necrosis, scarring and hyalinization, whereas the more recent were proliferative and were characterized by numerous large, immature reticuloendothelial cells, lymphocytes, plasma cells and fibroblasts. Although many new lesions were present, the overall histologic appearance indicated a reactivation of old, chronic foci of infection in the lungs, with a subsequent hematogenous spread to other organs, rather than a reinfection. Although typical Histoplasma capsulatum organisms were noted in the organs cited above, they were cultured from the bone marrow only.

The necrotizing bronchopneumonia appeared to be of at least seven to ten days' duration. The jaundice and ascites were the result of the suppurative cholangiohepatitis.

NECROPSY DIAGNOSES

1. Histoplasmosis, generalized, reactivation type, with involvement of lungs, spleen, liver, lymph nodes, adrenal glands and, probably, kidneys
2. Hemolytic Staphylococcus aureus infection of lungs, pleura, trachea, peritoneum, liver and lymph nodes (necrotizing bronchopneumonia with pleural effusion, suppurative cholangiohepatitis, jaundice and ascites)
3. Acute ulcerations of esophagus and stomach.

American College of Surgeons Meeting in Des Moines

The sectional meeting of the American College of Surgeons, to be held March 27-29 at the Fort Des Moines Hotel, in Des Moines, will be open to all members of the medical profession, and a program of entertainment has been planned for their wives. The scientific program is as follows:

Thursday, March 27

8:30 a.m. MEDICAL MOTION PICTURE: "Emergency Surgery in the Acutely Injured." James D. Hardy, M.D., F.A.C.S., Jackson

9:00 a.m. SYMPOSIUM ON EMERGENCY CARE OF MULTIPLE INJURIES

"Clinical and Photographic Records of Actual Cases Presenting Multiple Injuries"—R. T. Tidrick, M.D., F.A.C.S., Iowa City

"Disruption of Small Intestine and Lacerated Spleen"—Charles W. McLaughlin, Jr., M.D., F.A.C.S., Omaha, professor of surgery, University of Nebraska

"Differential Diagnosis, Intra-abdominal and Urinary Tract Injuries"—Rubin H. Flocks, M.D., F.A.C.S., Iowa City

"Multiple Fractures"—Carroll B. Larson, M.D., F.A.C.S., Iowa City

"Facial Trauma"—William C. Huffman, M.D., F.A.C.S., Iowa City

"Decision: Do or Do Not the Cerebrospinal Injuries Contraindicate Definitive Treatment of Other Injuries?"—E. S. Gurdjian, M.D., F.A.C.S., Detroit, professor of neurosurgery, Wayne University

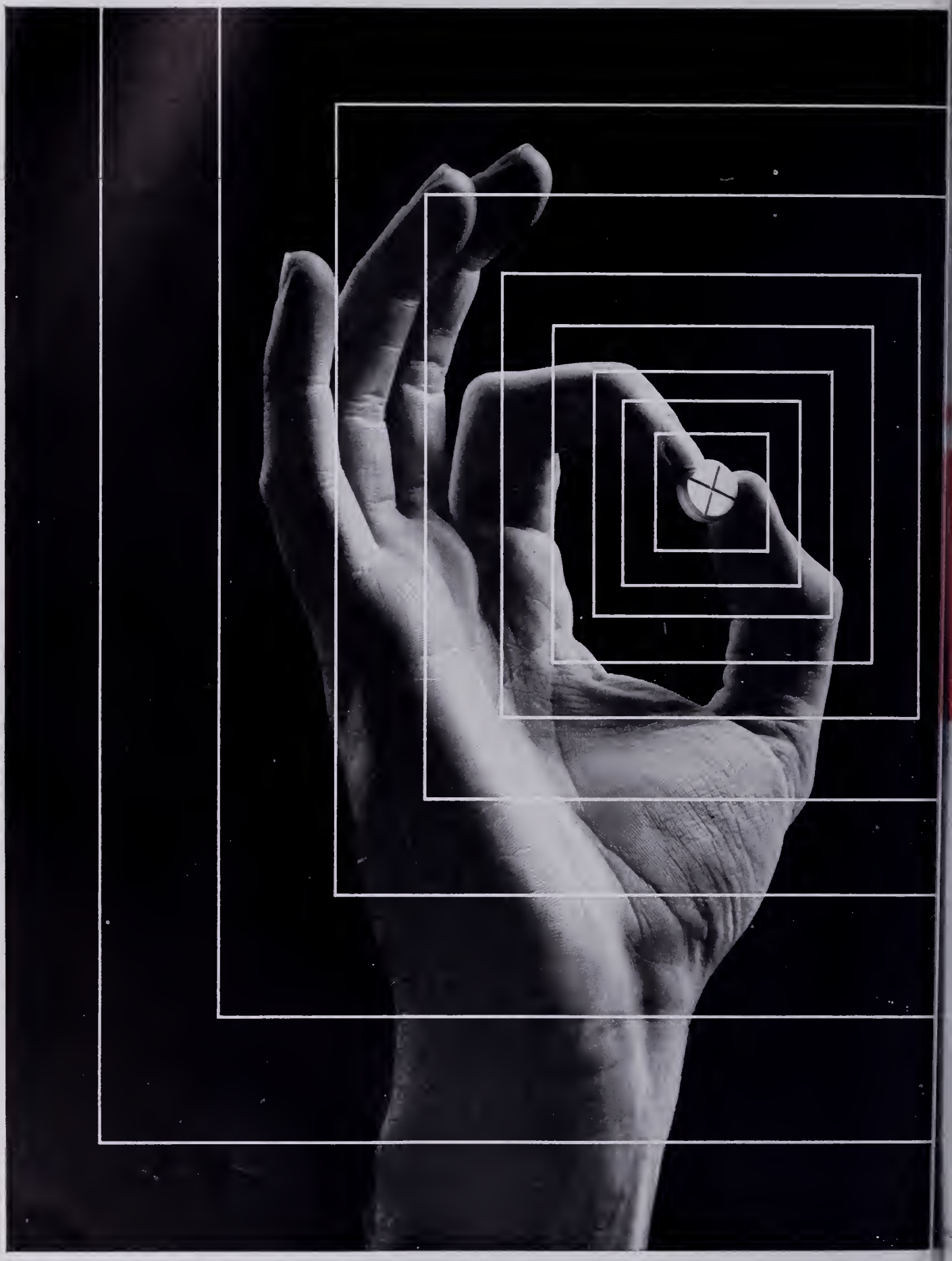
1:30 p.m. MEDICAL MOTION PICTURE: "The Doctor Defendant"

2:00 p.m. SYMPOSIUM ON SURGERY FOR CONGENITAL LESIONS

"Congenital Lesions of the Lung: Bronchial and Vascular"—William E. Adams, M.D., F.A.C.S., Chicago, Raymond Professor of Surgery, University of Chicago

"Congenital Anomalies of the Skeleton: Surgical Considerations"—Michael Bonfiglio, M.D., F.A.C.S., Iowa City

"Management of Obstructive Lesions of the Esophagus, Stomach and Duodenum in the Newborn"—Clifford D. Benson, M.D.,



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1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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F.A.C.S., Detroit, associate professor of surgery, Wayne University
"Diagnosis and Management of Atresias of Stomach, Duodenum and Small Bowel in the Newborn"—Dr. McLaughlin

3:40 p.m. PANEL DISCUSSION: "Gastrointestinal Tract Bleeding"
Richard L. Varco, M.D., F.A.C.S., Minneapolis, professor of surgery, University of Minnesota, *moderator*
James C. Drye, M.D., F.A.C.S., Louisville, associate professor of surgery, University of Louisville
Vinton E. Siler, M.D., F.A.C.S., Cincinnati, associate professor of surgery, University of Cincinnati
David H. Watkins, M.D., F.A.C.S., Denver, professor of surgery, University of Colorado

8:00 a.m. MEDICAL MOTION PICTURE: "Neoplastic Disease"—J. Elliott Scarborough, Jr., M.D., F.A.C.S., Atlanta
"Power Lawn Mower Injuries"—John N. McClure, M.D., F.A.C.S., Atlanta, instructor in surgery, Emory University
MEDICAL MOTION PICTURE: "Surgical Treatment of Bronchogenic Carcinoma"—George V. Brindley, Jr., M.D., F.A.C.S., Temple
MEDICAL MOTION PICTURE: "Caudal Pancreatico-jejunostomy for Chronic (Relapsing) Pancreatitis"—John A. Schilling, M.D., F.A.C.S., Oklahoma City

Friday, March 28

9:00 a.m. MEDICAL MOTION PICTURE: "The Story of Renal Calculi"—Charles C. Higgins, M.D., F.A.C.S., Cleveland

9:30 a.m. "Nonspecific Trauma and Peptic Ulcers"—Dr. Drye
"Stress Incontinence in the Female"—John W. Huffman, M.D., F.A.C.S., professor of obstetrics and gynecology, Northwestern University
"Ovarian Tumors"—John H. Randall, M.D., F.A.C.S., Iowa City
"Cardiac Arrest: Experimental and Clinical Study"—Harry H. McCarthy, M.D., F.A.C.S., Omaha, professor and director of Department of Surgery, Creighton University
"Postoperative Staphylococcal Enterocolitis"—Rupert B. Turnbull, M.D., F.A.C.S., staff surgeon, Cleveland Clinic
"Diagnosis and Management of Injuries to the Ureter and Bladder Occurring as the Result of Abdominal Surgery"—Dr. Flocks
"Drug Therapy in Arterial Disease: Fact or Fancy"—Robert A. L. MacBeth, M.D., Edmonton, associate professor of surgery, University of Alberta

12:15 p.m. FELLOWSHIP LUNCHEON (Ticket and Fellowship Card Required for Admission)

1:30 p.m. MEDICAL MOTION PICTURE: "Cholecystectomy With Elective Repair of Esophageal Hiatus Diaphragmatic Hernia"—John M. Dorsey, M.D, F.A.C.S., Chicago

2:00 p.m. SYMPOSIUM ON CANCER
"Chemotherapy of Cancer"—Gerald O. McDonald, M.D., Chicago, assistant professor of surgery, University of Illinois
"Hormone Therapy of Cancer"—Henry T. Randall, M.D., F.A.C.S., New York City, professor of surgery, Cornell University
"Interstitial Therapy at Operation: New Approaches Using Isotopes"—Paul V. Harper, M.D., F.A.C.S., Chicago, associate professor of surgery, University of Chicago, and surgeon, Argonne Cancer Research Hospital

3:35 p.m. PANEL DISCUSSION: "The Jaundiced Patient"
James T. Priestley, M.D., F.A.C.S., Rochester, professor of surgery, Mayo Foundation, *moderator*
William R. Bliss, M.D., F.A.C.S., Ames
Dr. McCarthy
Maurice H. Stauffer, M.D., Rochester, assistant professor of medicine, Mayo Foundation

6:00 p.m. RECEPTION AND DINNER
"Bills for Services—With or Without Anesthesia"—Carl F. Conway, Osage, Iowa

Saturday, March 29

8:30 a.m. MEDICAL MOTION PICTURES:
"Indications and Technic of Right Hepatectomy"—John T. Reynolds, M.D., F.A.C.S., Chicago
"Disaster Mobilization in Des Moines"—Marion Alberts, M.D., Des Moines

9:30 a.m. SYMPOSIUM ON FLUIDS AND ELECTROLYTES
"Sources of Error in Blood Electrolyte Determinations"—Kurt M. Dubowski, Ph.D., Des Moines, clinical chemist at Iowa Methodist Hospital
"Physiologic Bases of Fluid Therapy"—Bernard Zimmermann, M.D., F.A.C.S., Minneapolis, associate professor of surgery, University of Minnesota
"Fluid Therapy in the Face of Acute Renal Insufficiency"—William L. Valk, M.D., F.A.C.S., Kansas City, professor of surgery and chairman, Section of Urology, University of Kansas
"Common Errors in Parenteral Fluid Therapy"—Edward E. Mason, M.D., F.A.C.S., Iowa City
"Role of Electrolyte Solutions in the Treatment of Traumatic Shock"—Dr. MacBeth

10:40 a.m. PANEL DISCUSSION: "Fluids and Electrolytes"
Carl A. Moyer, M.D., F.A.C.S., St. Louis, Bixby Professor of Surgery, Washington University, *moderator*
Mr. Dubowski
Dr. MacBeth
Dr. Mason
Dr. Valk
Dr. Zimmermann

Editorials

ULTRASOUND SURGERY AT S.U.I.

Dr. Russell Meyers, professor of neurosurgery at the S.U.I. College of Medicine has made some rather spectacular progress in what is reputed to be the first application of ultrasonic vibrations in the treatment of Parkinson's disease, an ailment for which there has heretofore been no remedy.

Physicist William Justin Fry, whose discoveries Dr. Meyers is utilizing, began working with sound during his Navy service during World War II, and with funds provided by the Bureau of Naval Research, he experimented for several years afterward at the University of Illinois on the problem of focusing sound. Finally, he succeeded in quite literally pinpointing it.

Dr. Meyers has long been convinced that the way to treal Parkinsonism is to destroy two tiny parts of the brain, one on each side, called the ansa lenticularis, but to do so by conventional surgery would necessitate cutting through altogether healthy tissue. The same disadvantages would attend the injection of alcohol. Because he believed that sound would circumvent the difficulties that prevented the use of the other technics and, besides, could be made more delicate than a scalpel, he worked with Mr. Fry in designing a sound-treatment room at Iowa City.

Early in November, as was related in an article in TIME,* Dr. Meyers had completed innumerable experiments on animals and was ready to operate for the first time on human patients. "Under a local anesthetic four little dents were burred into the patient's skull, one above each eye and two in the back of the head. On a rolling table, the patient was wheeled back so that his head was under a stereostatic (space-positioning) instrument. A pin on a micrometer mounting fitted into each burr hole. X-rays revealed the main landmarks inside the skull. They could not show the elusive ansa lenticularis, but its position was determined from them. Coordinates were carefully noted.

"On the day of operation, each patient got only a local anesthetic, an injection of procaine hydrochloride into the scalp. Then, with a drill and saw, Dr. Meyers removed a piece of skull four by five inches. Ultrasound cannot be transmitted through bone because on meeting such resistance it generates too much heat. With the skull flap out of the way, the surgeons made a shallow pan in its place, using a metal strip as border and the dura mater . . . as the bottom. This they filled with salt solution from which all gas had been removed (ultrasound is transmitted best through a liquid medium).

"With the patient's head in the exact position of the day before (determined by the pins and coordinates and another x-ray as a double check), the four-part head of the quartz-crystal, ultrasound irradiator was lowered into the pan. While the patient remained fully conscious, no more distressed than he would have been in a dentist's chair, and talked occasionally, Dr. Meyers gave the signal and a technician pressed a button. Ultrasound, at a frequency of 980,000 cycles per second, shot through intervening brain tissues but not in sufficient intensity to damage them. The four beams came to a sharp focus at the exact part of the ansa lenticularis on the left side (controlling right-side movements) that Dr. Meyers wanted to destroy. The ultrasound dose lasted only 1.8 seconds. The patient was moved twice, a minute fraction of an inch, so that two more pinhead-size parts of the ansa lenticularis were destroyed.

"The salt pan was removed and the bone flap replaced. (It would grow back solidly into the skull in three or four weeks.) By the time the patient was wheeled back to his room, the uncontrollable tremor, the involuntary bending of the arm and turning in of the thumb on the right side had disappeared."

The operation is performed in two stages, and in the procedure just described, Dr. Meyers operated on only one side of each patient. In a few months, the patients will return for treatment of the ansa lenticularis on the right, to halt Parkinsonian movements on the left side.

In a note that he wrote last month to the editors of the JOURNAL, he said that so far he has operated upon seven patients "with encouraging, but not altogether satisfactory results." He went on to say, "We are steadily correcting our technics."

All of us who practice medicine in Iowa take a great deal of satisfaction from such work as Dr. Meyers is doing, for it shows us and the rest of the world that our S.U.I. College of Medicine is making constant and in some instances dramatic contributions to knowledge and to human welfare.

Plan to attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines
April 20-23

* Ultrasound Surgery, TIME, 70:23 (Dec. 2) 1957.

ENVIRONMENT AND CANCER

Over the years, the problem of cancer has been approached from many directions. Much study has been directed toward diagnosis and treatment, and we have come to rely upon pathology as a means of recognizing neoplasms, and upon surgery and radiology for eradicating them. Recently, chemotherapy has shown some promise of aiding us in the latter area.

Now, there is intense interest in cancer etiology, and we have begun to hope that some ways may be found for *avoiding* the disease. In addition, we are awakening to the possibility that some factor or factors in the causation of cancer may lead us to a more enlightened mode of treatment. Thus it is only natural that, in addition to clinical studies, we are turning to epidemiology, genetics and environment.

Studies of the relationship between environment and cancer are not new, but as knowledge of the background of cancer has accumulated, the finger of suspicion has pointed more and more accusingly at the multitude of items which surround us in our everyday lives. We might have expected it to do so, since the incidence of cancer is actually increasing.

The interest in tobacco and its relation to human lung cancer is familiar to all of us. No one yet knows whether the fault lies in some hydrocarbon in the tar or in the smoke, or in the arsenic used in tobacco culture. Neither has been shown to be the direct and unassisted cause of cancer. But cancer is known to attack a markedly greater number of smokers than of non-smokers.

Food additives are likewise getting considerable honest scrutiny. Only a few over 40 out of 400 such products have thus far been tested, but about half a dozen of them have been found carcinogenic. If the investigation is to be a thorough one, the sprays that are used in the culture of various food products will someday need to be studied.

Leukemia occurs more frequently in roentgenologists than in the normal run of population. This finding led investigators to run tests upon x-ray equipment, and they found that scatter x-rays could be demonstrated easily, simply by putting a cone in place and exposing a large plate. In consequence, a genetic study is being made of the secondary effects that may be suffered by the dependents of roentgenologists.

Air pollutants are undergoing a searching study. For a long time it has been suspected that city dwellers may develop cancer of the lungs or even of other parts of the body as a result of breathing smoky or smoggy air. Automotive engine exhaust gas is thought to be a principal pollutant, and of course it has been the principal subject of some studies.

In fact, a multitude of chemicals have come under the discerning eye of the cancer researchers, and a few years ago world literature was examined and a compilation was made so that a book might be published under the title COMPOUNDS THAT HAVE BEEN TESTED FOR CARCINOGENIC ACTION. The number of them that were reported in that volume is amazing, but investigations have continued and a supplement to the book is to appear rather shortly.

We have made no special mention of carcinogens which constitute occupational hazards in certain industries, but they too have been under the scrutiny of researchers.

Thus the work continues. All of these problems are extremely complex and must be settled solely on the basis of biologic and other scientific facts. If an environmental agent is charged with carcinogenicity, it must be shown to operate in a pathogenic sequence. In other words, the factors involved must operate either simultaneously or sequentially, resulting in a constellation, the ultimate organic picture of which is a given case of cancer of the lung or cancer of some other organ. The suspected agents must be traced carefully into the body and into the cells, and then the reaction within the cells must be defined. This is painstaking work, and it is reasonable to expect that some time will elapse before an evaluation of the carcinogenesis of any given environmental agent can be made.

Perhaps many hitherto unsuspected environmental agents may turn up for examination. Thus, a resurgence of interest in the influence of environment upon the etiology of cancer promises us a new look into the future. Who knows whither it may carry our knowledge?

THE GERIATRIC PROBLEM

The growing problem posed by America's aging population is the subject of the first issue of a new publication PATTERNS OF DISEASE, which Parke, Davis & Company has mailed to 140,000 physicians. Maximum concentrations of elderly people, it reveals, are in widely scattered areas—New England, the Upper Mississippi Valley and Florida —rather than in California and the states bordering the Gulf of Mexico, as has been widely believed. The new periodical consists almost entirely of maps and charts, and this first issue goes on to show that though the population of this country has no more than doubled since 1900, its number of people 65 years of age or older has quadrupled.

Care for the aged imposes a heavy financial drain, as is shown by some others of the charts. Although they comprise only nine per cent of the population, country-wide, elderly patients incur 13 per cent of the costs for all private personal-health services. Whereas the average individual spends about $78 per year for such attention, the average aged individual spends $122.

PATTERNS OF DISEASE predicts that old people will make specialists increasingly busy, and declares that severely disabled patients in that age

group need medical checkups on the average of once every two months.

Future issues of the publication will deal similarly with such topics as cardiovascular disease, arthritis, allergies, diabetes and mental health. A valuable regular feature will be a tabulation of morbidity reports from all of the principal cities of the country.

MONEY-RAISING GROUPS WITHDRAW FROM UNITED FUNDS

The February issue of the JOURNAL carried a report that the Iowa Division of the American Cancer Society is withdrawing from United Fund campaigns. Now the American Heart Association has made a similar announcement of intention.

Except for the Cancer Society's wish to have its solicitors do the added job of encouraging people to undergo physical examinations, the reasons advanced by the two organizations are practically identical. The president of the American Heart Association, Dr. Robert W. Wilkins, a professor of medicine at Boston University, says that during his organization's early years it participated in over 450 United Funds, "and sadly learned not only that the amounts collected were inadequate, but also that devotion and zeal were lost even among dedicated Heart volunteers when they succumbed to the siren song of 'once for all.'" Now, the Heart Association has withdrawn from all but 270 of these Funds. Based upon per capita giving in the remaining funds, he said, the Heart Association in 1957 would have raised less than half the amount it did raise had it participated in United Funds everywhere.

The Heart Association declares that in reasserting its independence it is resisting unfair methods and ridding itself of control by uninformed executives. The rough tactics of which Dr. Wilkins speaks include threats against agencies that do not participate in United Funds and attempts to tell the public not only how to give, but where to give, when to give, and how often and how much to give. As regards detrimental control, he says, "Uninformed, though conceivably well intentioned, local laymen are entering directly into national medical fields of health and disease, and deciding where and when funds should be spent for each purpose, and how much. United Fund people may understand local charity needs, but they know nothing about the requirements of nationally coordinated programs of medical research being conducted by the voluntary health agencies."

Along with most other people, we originally welcomed the idea of opening our checkbooks only once a year in response to pleas for contributions, but we are inclined to approve of the action that the Cancer Society and the Heart Association have announced. It seems Dr. Wilkins may be right that the managers of joint fund-raising campaigns have been less than fair both to the people from whom money is sought and to the organizations for which it is collected.

But we are not satisfied that a return to the *status quo* is altogether desirable. Nationally no less than locally, there are some very worthy causes that cannot be dramatized enough to attract the large sums that they require. Basic research is the principal member of that group. The organizations that finance research work in the fields of tuberculosis, heart disease, cancer, poliomyelitis, multiple sclerosis, and arthritis and rheumatism will no doubt fare better by "going it alone," and we suspect that Dr. Wilkins is using a bit of "flag-waving" to obscure an important issue when he says, "Competition is the American way, and health needs, like other needs, must compete for public support."

TRUST

The *best* medical care is rendered when there is personal relationship between physican and patient which provides the best possible opportunity for the patient to achieve his desired goal in health. That is the kind of relationship that cannot be punched into a card or tabulated in dollars, but it is just as real as an electrocardiogram or a sedimentation rate.

Perhaps a case observation might illustrate the point. Several years ago an elderly gentleman was admitted to an Eastern hospital for nephrectomy. When the resident made rounds the evening of his admission, he made a mental note of the fact that the patient did not display the concern which might be expected of one confronted with such serious surgery. The next morning he had a nephrectomy, and that evening when the resident made rounds, the patient was reading the paper, with no evidence that he had undergone a truly major procedure. It took the resident some time to understand that patient. It finally dawned on him that, for the first time, he had seen a patient go through surgery without fear.

It had been possible because his surgeon was an old and trusted friend in whom his confidence was absolute. The surgeon had operated on him before. His surgical ordeal consisted of a brief sleep under anesthesia and a little inconvenient pain in his side—nothing more.

Those who understood the real nature of the art of medicine will realize that the pinnacle of that art was achieved by the surgeon in that case. He delivered the commodity represented by gentle, expeditious surgery, but that was only something he did to the patient's flank. What he delivered to the patient was more significant, but to some people a little more difficult to understand. It was the creation of a peculiarly personal relationship, deeply satisfying to both, which permitted the patient to undergo his surgery without fear.

—From an editorial in NORTHWEST MEDICINE, 57: 28, (Jan.) 1958.

President's Page

SPENDING OURSELVES INTO "JAIL"

"The people never give up their liberties but under some delusion. The true danger is, when liberty is nibbled away, for expedients, and by parts."—Edmund Burke

Many people say they would just as soon live in jail as under some form of socialism or communism. The outlook for such individuals isn't happy, for we are rapidly spending our way into socialism, into communism or—as liberty-loving people view it—into jail.

In 1950, taxes took one dollar in four from our earnings. Today, taxes take one dollar out of three. The per capita tax burden is $600, and three-fourths of that amount is federal. Colin Clark, a noted Australian economist, says that inflation results if taxation exceeds 25 per cent of national income. Others claim that 39 per cent taxation means socialism, 42 per cent means communism, and more than 44 per cent means slavery.

The two greatest drains on our national resources today are war (including preparation for war) and welfare. The ever-increasing demands for welfare expenditures represent a real threat to our system of government and to private enterprise. In particular, having the federal government provide medical care for everyone would cost up to 15 or 20 billion dollars a year in additional taxes. We must block this proposal if we are to preserve the freedom of our nation, as well as of our profession!

Already, America is dangerously near fulfilling a prediction which Karl Marx made in 1848, that the destruction of capitalism would be achieved through the impoverishment of the middle class by means of a highly progressive tax.

This danger is real, and the instrument of our destruction could very well be the increased taxes that are incidental to the expansion of the Social Security system. Physicians must actively oppose all efforts to place medical care under Social Security. We must tell the public about the dangers. We must not countenance the Social Security Act by subscribing to it ourselves.

Ours is a struggle for liberty and democracy in a world that is being hemmed in by socialism and communism.

Fred Sternagel

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

OFFICE GASTROENTEROLOGY, by *Albert F. R. Andresen*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $14.00).

CLINICAL HEART DISEASE, FIFTH EDITION, by *Samuel A. Levine, M.D.* (Philadelphia, W. B. Saunders Company, 1958. $9.50).

GYNECOLOGICAL & OBSTETRICAL PATHOLOGY—WITH CLINICAL AND ENDOCRINE RELATIONS, FOURTH EDITION, by *Emil Novak*, M.D., and *Edmund R. Novak*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $14.00).

A TEXTBOOK OF CLINICAL NEUROLOGY, WITH AN INTRODUCTION TO THE HISTORY OF NEUROLOGY, EIGHTH EDITION, by *Israel S. Wechsler*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $11.00).

DRUGS—THEIR NATURE, ACTION AND USE, by *Harry Beckman*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $15.00).

THE NEUROSES AND THEIR TREATMENT, ed. by *Edward Podolsky*, M.D. (New York City, The Philosophical Library, Inc., 1958. $10.00).

DIABETES AS A WAY OF LIFE, by *T. S. Danowski*, M.D. (New York City, Coward-McCann, 1957. $3.50).

YEAR BOOK OF DRUG THERAPY, ed. by *Harry Beckman*, M.D. (Chicago, The Year Book Publishers, Inc., 1958. $7.50).

BOOK REVIEWS

MEDICINE IN CHICAGO, 1850-1950, by *Thomas N. Bonner*. (Madison, American History Research Center, 1957. $5.00).

This history is largely concerned with the social significance of medical progress in a rapidly growing city. Those whose memories go back to the earlier periods may disagree with the critical appraisal of certain personalities and epochal events that made medical history in Chicago, yet the pleasing style of the story will appeal to laymen and physicians alike.

By 1850, Chicago had grown to be a town of 30,000 inhabitants. In the succeeding 50 years, it was transformed into a metropolis, and in the first half of the twentieth century it rapidly become one of the leading medical centers in the world. Sanitary hazards in the rapidly growing city and working conditions in the dominant meat packing industry became major concerns of the medical authorities. Chicago had its last cholera epidemic in 1866, and its most extensive outbreak of smallpox came as the aftermath of the Columbian Exposition, in 1893.

Credit is given to Dr. Edmund Andrews for introducing surgical antisepsis in Chicago, publishing a modification of Lister's technic in 1869. Yet, Dr. Moses Gunn, the most famous surgeon of the 1870's, clung to the doctrine of "laudable pus" in gauging the success of operations.

Professors at the Chicago medical school were among the first in America (1873) to make systematic studies of bacteriologic investigations and to report the conclusions. They were Dr. William T. Belfield, of Rush, and Dr. Henry Gradle, of Chicago Medical College. By 1896, bacteriology had become a part of the medical curriculum in all schools.

The awakening of scientific medicine in Chicago came with the advent of the noted Danish pathologist and surgeon, Dr. Christian Fenger, in 1878. During the next two or three decades other great men began to appear in Chicago medicine, many of them disciples of Dr. Fenger. Pathologists such as Ludwig Hektoen, E. R. LeCount, H. Gideon Wells, Frederick Zeit, Richard H. Jaffe, and a host of others, practitioners of internal medicine, notably Frank Billings, James B. Herrick and Robert B. Preble, and celebrated surgeons such as J. B. Murphy, William J. Mayo and Lewis L. McArthur learned their surgical diagnosis and pathology from Fenger.

Dr. Nicholas Senn came in 1878 and added greatly to the prominence of Chicago as a surgical teaching center. Isaac Abt became one of the first to practice pediatrics as a specialty; Joseph B. DeLee, obstetrics; E. L. Holmes and William H. Wilder, ophthalmology; Archibald Church and Hugh T. Patrick, neuropsychiatry; and James Nevins Hyde and William Allen Pusey, dermatology. After the turn of the century there were further great names: Howard T. Ricketts, Bertram W. Sippy, Arthur R. Edwards, N. S. Davis, Jr., R. T. Woodyatt and Ernest E. Irons, internal medicine; and Arthur Dean Bevan, Dean Lewis, Allen B. Kanavel and Franklin H. Martin, surgery.

The development of medical schools in Chicago forms an interesting chapter, and in addition there are sections on the origin and development of hospitals and special societies, on certain socio-medical problems, on public health work, and on the profession's relationships with the public, all of which have left their impress on the development of this great medical center.

The author is chairman of the Department of Social Science at the University of Omaha, and he did his work under a special fellowship provided by the Chicago Medical Society.—*Walter L. Bierring*, M.D.

ONE SURGEON'S PRACTICE, by *Frederick Christopher*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $4.00).

This small book (140 pages) contains much more advice than is to be found in whole sets of volumes that were issued several years ago. It is chiefly the legacy of a surgeon who has practiced the art of medicine for many years. It contains word pictures of the many phases of surgical practice, including illustrative examples and anecdotes. The book is extremely easy to read and can be recommended for college students who anticipate professional careers in medicine. Such readers will be especially interested in the first two chapters. From that point on, the book deals with the spe-

cialty of surgery and gives the reader a glimpse into the life of a busy specialist.

One interesting feature is the bringing up to date of the practice of surgery from the early 1920's and the enumeration of the vast changes that have occurred in surgical practice during that length of time.

The book is interesting and is well worth the short time one needs to spend in reading it.—*Homer E. Wichern,* M.D.

CURRENT SURGICAL MANAGEMENT: A BOOK OF ALTERNATIVE VIEWPOINTS ON CONTROVERSIAL SURGICAL PROBLEMS, ed. by *John H. Mulholland,* M.D., *Edwin H. Ellison,* M.D., and *Stanley R. Friesen,* M.D. (Philadelphia, W. B. Saunders Company, 1957. $10.00).

The contributors to this work, numbering 76, are instructors and professors of surgery in teaching institutions throughout the country. It is different from surgical textbooks in that varying viewpoints are presented with authority. It is a book which can be recommended for all libraries and for the use of all surgeons, and since some of the conditions with which it deals are not the exclusive concern of surgeons, it can be recommended also to specialists in internal medicine.

Some of the problems presented are those of acute cholecystitis, duodenal ulcer and complications, regional ileitis, ulcerative colitis, abdominal perineal resections, sliding hernias, radical neck dissection for cancer of the lip, carcinoma of the thyroid and cancer of the cervix. One can readily see that these topics are ones which would stimulate much discussion.

One of the outstanding features of the book is that results (up to 10 years) following surgical procedures are clearly detailed.

This is a significant work, and another volume in the same field should be published in two years—*Homer E. Wichern,* M.D.

HEALTHFUL SCHOOL LIVING, prepared by the Joint Commission on Health Problems in Education of the National Education Association and the American Medical Association. (Chicago, American Medical Association, 1957. $5.00).

During World War II, the Selective Service System brought to the fore the large number of young men and women in the United States who were physically ineligible for military service for various reasons. As a result, the subject of school health assumed a new importance in the curricula of American schools.

Here is a volume which represents the work of many committees and consultants, and which deals with all of the problems of healthful school living. Included are such subjects as school organization for pupil health, personalities and teaching methods, program considerations in the classroom, elimination of hazards and prevention of disasters, school housekeeping, the school lunch, health aspects of schoolhouse construction and equipment, lighting and acoustics, heating and ventilation, water supply and waste disposal, and the environment for physical education including athletic programs. Particular attention is given to the special problems of rural schools.

It should be easy to see that any physician, physical education instructor or school administrator should include this book in his library. The volume represents the best information available for the improvement of health education for every school-age child.—*Everett M. George,* M.D.

MANUAL OF PEDIATRIC PHYSICAL DIAGNOSIS, by *Lewis A. Barness,* M.D. (Chicago, The Year Book Publishers, Inc., 1957. $4.00).

This 195-page paper-bound manual arose from a series of second-year medical-student notes taken at the University of Pennsylvania Medical School. It represents a review of all the aspects of physical examination of the child—technics, observations and interpretations. A special section deals with the newborn and the premature infant. Included in the appendix is a brief summary of some rare syndromes, with their characteristic appearances.

This manual would find its greatest usefulness in the hands of the medical student or pediatrics intern. For the practicing physician, it might serve as a reminder of some phases of physical examination which he had been neglecting, and all of us must remember that errors in diagnosis are often the result of oversight and the consequent omission of a simple procedure, rather than the result of ignorance.—*M. E. Alberts,* M.D.

MAY'S MANUAL OF DISEASES OF THE EYE, TWENTY-SECOND EDITION, ed. by *Charles A. Perera,* M.D. (Baltimore, The Williams & Wilkins Company, 1957. $6.00).

MAY'S MANUAL OF DISEASES OF THE EYE was first published in 1900 and has been a favorite of the medical student and the general practitioner ever since. This twenty-second edition contains much new information, and it is up-to-date in most respects. Included in the new edition are the modern classification of glaucoma and its treatment with Diamox, as well as with corticosteroids and other new drugs and hormones. Of particular value is the chapter on compensation of the eye, which is based on the 1955 report of the American Medical Association.

The coverage of major surgical procedures appears to be more extensive than is necessary in a book that is not written for the specialist.

Most of the illustrations are good, but some of the color plates seem to be the same as those in previous editions and could be improved upon.

I am sure that this book will continue to be extremely popular among medical students and general practitioners.—*Henry H. Gurau,* M.D.

IOWA TRUDEAU SOCIETY

All Iowa physicians are being invited to be guests of the Iowa Trudeau Society at its annual meeting at Hotel Savery in Des Moines, April 9, according to Daniel F. Crowley, Jr., M.D., president.

A panel presentation of short subjects on tuberculosis and chest diseases, of particular interest to practicing physicians, will be moderated by Floyd M. Feldmann, M.D., medical director of the National Tuberculosis Association and director of medical research of the American Trudeau Society.

Dinner will be served at 6:30 p.m., and the scientific session will be held from 7:30 to 9:00 p.m.

Members of the program planning committee include Drs. William K. Hamilton, Iowa City, chairman, Arthur C. Wise, Iowa City, W. L. Randall, Hampton, Gerald F. Keohen, Dubuque, and S. F. Yugend, Indianola.

F.D.A.

The federal Food and Drug Administration has some highly important duties, and by and large, it fulfills them with admirable efficiency.

In 1900, when the agency was first established, commercial food production was in its infancy, and the housewife had no means of assuring herself about the wholesomeness of the prepared foods and medicinal articles that were offered for sale. Yet, she was fully aware that a problem faced her. Articles were appearing in the press exposing filthy and fraudulently advertised or labeled products. She was told that some foods were being dosed with excessive amounts of chemical preservatives, that candies were colored with poisonous dyes and that soothing syrups for infants contained narcotics, and she was warned against putting her confidence in the cure-all claims of patent medicine manufacturers. But except for those warnings, she had been given no protection.

In that year, Congress passed the original "Pure Food and Drug Law." Enforcement of it was originally vested in the Bureau of Chemistry of the U. S. Department of Agriculture, but in 1927 the Food and Drug Administration was made a separate unit of the Department of Agriculture, in 1940 it was moved to the Federal Security Agency, and in 1953 it became a part of the new Department of Health, Education and Welfare.

The principal job of the Food and Drug Administration (F.D.A.) is to enforce the federal Food, Drug and Cosmetic Act, a piece of legislation designed to insure that food, drugs, therapeutic devices and cosmetics are wholesome, safe, made under sanitary conditions and truthfully labeled. It protects conscientious manufacturers from competition by those who are willing to market inferior or dishonestly labeled goods.

The F.D.A. has approximately 200 inspectors in the field, visiting factories and processing plants, and looking for violations of the Act. Sixteen district offices are equipped with laboratory facilities for the analysis of samples, and research laboratories contain staff and apparatus for work on more difficult problems and for the devising of improved methods of analysis. When a violation has been found and when a warning has not brought a remedy of the situation, the F.D.A. legal staff seeks injunctions or takes whatever other legal steps may be necessary. Each year, about 1,300 food and drug cases are brought into the federal courts.

In addition to the job of policing the purity, quality and labeling of foods, drugs and cosmetics, the F.D.A. has other tasks:

1. It enforces the law against the illegal sale of prescription drugs.
2. It checks the safety of all batches of coal-tar dyes to be used in drugs or cosmetics.
3. It enforces the law governing therapeutic devices.
4. It checks the safety of all "new drugs" before they are put on sale.
5. It tests all batches of insulin and five of the most important antibiotics.
6. It establishes standards for the composition and real value of food products in accord with the congressional mandate "to promote honesty and fair dealing in the interest of consumers."
7. It checks imported food, drugs and cosmetics to make sure they comply with U. S. law.
8. It cooperates with state and local officials in the inspection of foods and drugs that may have been contaminated in disasters.

The F.D.A. prohibits the introduction into interstate commerce of any drug, device or cosmetic that has been adulterated or misbranded.

The foregoing is a brief résumé of a U. S. Government publication entitled "Federal Food, Drug and Cosmetic Act and General Regulations for Its Enforcement." If any of us were manufacturers, producers, retailers or consumers in a country that didn't have protections such as the F.D.A. provides, we certainly would have great respect for what, in this country, we are inclined to take for granted.

ATTEND THE IAGP LUNCHEON

Iowa Room, Hotel Savery

12:15 p.m., Tues., Apr. 22

During the ISMS Annual Meeting

Make advance reservations by writing to the IAGP office.



THE DOCTOR'S BUSINESS

Growth Stocks

HOWARD D. BAKER

WATERLOO

Among American investors, *growth stocks* is one of the most popular terms. Yet the meaning of the phrase hasn't been precisely agreed upon, and it is sometimes used rather indiscriminately. As a result, one must be very careful in checking the qualities of the equities that have been so designated.

A security really deserves to be called a growth stock only if its market value has grown and is very likely to continue growing rapidly over a period of years. That is to say, it must have strong potentialities for advancing more rapidly than the market average.

In deciding whether a stock will perform in that superior fashion, one needs to weigh the prospects both of the industry to which the firm belongs and of the firm itself. Perhaps most of all, he needs to assess the competence—especially the aggressiveness—of the firm's management. It must have sound finances and a substantial profit margin, but in addition it must have an active research program. Most firms whose securities deserve to be called growth stocks have records of expansion, of marketing new and improved products at low prices, and of providing ever larger numbers of jobs at good wages.

Let's go over those criteria once more, and more slowly. First, both the industry and the firm must have a bright future. One should ask himself whether a new product, within a short time, is likely to curtail or destroy its business, as the automobile did to the industry which centered about the horse. Then he should find out whether the industry in question is likely to prosper more or less than others during the immediate future. Stock prices tend to move in industrial groups, and the degree of selectivity is even greater today than it used to be.

Second, the company must be outstanding within its industry. It is noteworthy that although the auto industry has enjoyed spectacular growth over the past 25 years, only a very few of the 2,000 firms that once made cars are still in business. Excessive competition has also killed off many companies in the promising electrical appliance field and has dimmed the prospects of some of those still in operation.

Third, management must be able and aggressive. Prospective investors should look closely at this factor. A study of a corporation's record will often identify good management, especially when the firm has outperformed its competitors without having had other significant advantages. The liberality with which management is supporting its research program and the share of net that reflects sales of recently developed products are points that one should particularly note.

Fourth, to deserve being called a growth stock, a security must belong to a firm that is financially sound. Though financial stability varies somewhat from industry to industry, one is justified at least in comparing companies within a particular field. Since few cash-short companies succeed, the investor is wise to put his money only into firms that have sufficient reserves to assure their weathering temporary reverses.

In addition to meeting these requirements, one can expect a growth company to show four other characteristics. Its sales and earnings must be rising, and it must be adding to its plant and equipment, building up its working capital and avoiding dilution of its common stock.

FOR MEN IN HIGH TAX BRACKETS

As a general rule, growth stocks cannot be expected to yield high dividends. Though the average industrial stock has a current yield of slightly more than 5 per cent, the average growth stock pays no more than about 3 per cent, in part because investors think highly of the firm's prospects, and in part because the firm's directors are retaining a sizable share of earnings to pay for research and expansion. Thus, growth stocks lend themselves very well to the purposes of a man who is in a high tax bracket and is more interested in price appreciation than in immediate dividend income.

Investments in growth stocks need somewhat closer management than do investments in other securities, but they promise greater ultimate rewards.

A STUDY OF SPENDING PATTERNS

Financed by a grant from the Health Information Foundation, the Department of Sociology at N.Y.U. has made a study of the spending habits of some typical families in Hackensack, a New Jersey town of 29,000 population. The preliminary report,* though not surprising, is quite interesting.

The 436 families studied were found to have incomes quite evenly distributed among four groups: $5,000 and below; $5,000-$6,500; $6,500-$9,000; and $9,000 and over. The medians in the respective groups were $4,200; $5,626, $7,700 and $10,000. The median age of the heads of families was 43 years, the couples had been married an average of 16 years, and they had an average of between two and three children. One-third of the parents in the lowest income group and two-thirds of those in the highest income group had attended college.

Two-fifths of the families had additional income besides the salary of the breadwinner. This averaged 50 per cent additional income in the highest income group, and a third in the lowest one.

In the lowest income group, long-range goals primarily concerned increase in material goods or repair of such articles. The higher income groups were primarily interested in educating their children and establishing them in good jobs.

When these families were asked what they would do with $100, $500 or $1,000 additional income, those in the lowest brackets replied that they would pay bills and/or get better housing for themselves. Those in higher income brackets would use such windfalls for their children's or their own education, for travel and so forth.

The investigators noted that even the families with less than $3,000 annual income had all of the material goods that are thought to characterize the American standard of living. They had good refrigerators, stoves, television sets, etc. Only 12 of the 436 families had no automobile, but in the lowest income group, 70 per cent of those owning cars had ones of 1952 vintage or older. Of the lowest-income families, 66 per cent said they budgeted their expenses, but of the highest-income ones, only 43 per cent said they did. It was found that a high proportion of even the highest-income group are accustomed to making installment purchases, and though it is generally supposed that most of the foolish buying is done by relatively poor people, investigation revealed that most impulse-buying was done by those in the upper brackets.

Nine out of ten of the families studied were covered by voluntary health insurance—70 per cent by Blue Cross and Blue Shield. These people generally said they would like more nearly complete protection, but the lowest-income families were not entirely sure of how much more they could pay for.

* Health Information Foundation . . . its eighth year, 1957. pp. 11-15.

INVITATION TO JOIN MEDICAL INDUSTRIAL GROUP

At 12:15 p.m. on Monday, April 21, during the ISMS Annual Meeting, there will be a Dutch-treat luncheon in the West Room of the Savery Hotel to which all physicians (specialists or GP's) interested in the Iowa Society of Industrial and Occupational Medicine and Surgery are invited. Those who are not already members will have an opportunity to join the group at that time, if they so desire.

Dr. Dwight C. Wirtz, a Des Moines orthopedic surgeon, will speak on "Office Treatment of Low-back Pain."

The principal topic for group discussion will be the First Iowa Industrial Health Conference, which is to be held at the Savery Hotel, in Des Moines, December 6 and 7, 1958. Plans for that conference were initiated by the Des Moines Chamber of Commerce, and cooperation will be given to the project by the Polk County Medical Society, the Iowa State Medical Society, the Iowa Academy of General Practice and the Iowa Association of Manufacturers, as well as by the Iowa Society of Industrial and Occupational Medicine and Surgery.

The Central States Society of Industrial Medicine and Surgery, a component of the Industrial Medical Association, will hold its fall meeting in conjunction with this gathering at Des Moines in December. Thus, industrial physicians can be expected to come to it from Minnesota, Wisconsin, Nebraska, Illinois, Indiana and Missouri, as well as from Iowa.

ADVERTISERS' CLAIMS NOTWITHSTANDING

Two articles* in the NEW ENGLAND JOURNAL OF MEDICINE for January 30, 1958, seriously challenge the claims made for buffered aspirin in current TV advertisements. The amount of buffering material present in each "buffered" aspirin tablet was found to be so exceedingly small as to prevent its affecting gastric contents in any way. Thus in fact, it did not influence absorption or prevent any degree of local irritation or stomach upset.

Careful measurements of blood aspirin levels by these investigators showed no difference between plain and buffered aspirin in the height or speed of appearance of aspirin in the blood. Furthermore, the authors found by means of double blind studies that patients could not distinguish between the buffered and plain aspirin.

These objective data cast doubt upon such claims as "less stomach irritation," "acts twice as fast," etc.

* Batterman, R. C.: Comparison of buffered and unbuffered acetylsalicylic acid. New England Med. J., 258:213-219, (Jan. 30) 1958.
Cronk, G. A.: Laboratory and clinical studies with buffered and non-buffered acetylsalicylic acid. *Ibid.*, 258:219-221, (Jan. 30) 1958.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

BUDDING SCIENTISTS STUDY INFLUENZA

The Iowa State Department of Health was surprised and pleased, recently, to receive the following report from the superintendent of schools at Marion, Iowa. It summarized information gathered and compiled by two members of the Science Club at the Marion Junior High School.

EFFECTIVENESS OF ASIAN FLU VACCINE, OCT., 1957, EPIDEMIC

"*Persons interviewed:* 79 teachers and employees of the Marion Independent School District (City of Marion, Ia.).

Number receiving Asian Flu shots 53
Number not receiving Asian Flu shots .. 26

"*Effectiveness:* Of the 53 persons in the vaccinated group, 15 came down with the flu. Thirty-eight (38) did not get the flu. Of the 26 persons *not* receiving the flu shot, 15 did get the flu and 11 did not come down with the flu.

Comparison by percentages	*Did not get flu*
Vaccinated group	72 per cent
Unvaccinated group	42 per cent

"Of the 15 persons in the vaccinated group who got the flu, 13 became sick 11 or fewer days after the shot. Since the vaccine does not take full effect until about two weeks after the shot, it is not known if the vaccine was ineffective, or simply did not have time to take effect. However, as shown below, the people who had the shot and did get the flu had milder cases than did those in the unvaccinated group."

	Mean body temperature while sick	*Average number of days sick*	*Percentages having relapses*
Vaccinated	101.4°F	4.3	20 per cent
Unvaccinated	102.6°F	9.25	33 per cent

We believe that the foregoing report shows that even junior high school youngsters do have the interest and ability that are necessary to the completion of worthwhile science projects or studies.

The children and their teacher were careful to consult their school nurse and a local physician, who helped them in planning the study. It should be pointed out, to the credit of these students and their advisors, that although the group of individuals whom they studied was a small one, they studied the factors that interest us when we consider the effectiveness of the influenza vaccine. Besides studying the effectiveness of the serum in protecting the recipients from contracting the disease, they undertook to assess the effects it had in mitigating fever, length of illness and incidence of complications. These latter are benefits that many of us are inclined to forget.

Thus, the children demonstrated that the illness occurs less frequently in the vaccinated than in the unvaccinated, and that a vaccinated individual who nevertheless contracts influenza will probably have a much milder illness and a shorter absence from work, and will be less likely to experience complications.

We want to express our thanks to the superintendent of the Marion schools for giving us permission to use this material.

MORBIDITY REPORT FOR MONTH OF JANUARY

Disease	*1958 Jan.*	*1957 Dec.*	*1957 Jan.*	*Most Cases Reported From These Counties*
Diphtheria	2	3	1	Muscatine, Pottawattamie
Scarlet fever ..	166	144	119	Jefferson, Johnson, Polk
Typhoid fever ..	0	0	3	
Smallpox	0	0	0	
Measles	99	41	949	Linn, Winnebago
Whooping cough	5	11	45	One from a county
Brucellosis	2	8	9	Plymouth, Polk
Chickenpox	545	374	887	Dubuque, Linn, Polk, Story
Meningococcus meningitis ...	3	3	1	Polk, Warren, Winneshiek
Mumps	510	292	487	Boone, Polk, Warren
Poliomyelitis ...	0	2	0	
Infectious hepatitis	13	4	31	Scott, Woodbury
Rabies in animals	12	8	21	One from a county
Malaria	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Tuberculosis ...	38	30	19	For the state
Syphilis	108	96	89	For the state
Gonorrhea	51	51	43	For the state
Histoplasmosis .	0	0	1	
Food intoxication	0	0	0	
Meningitis (type unspecified) .	0	0	1	
Diphtheria carrier	0	0	0	
Aseptic meningitis ...	1	0	0	Carroll
Salmonellosis ..	4	0	2	Des Moines
Tetanus	0	0	0	
Chancroid	0	0	0	
Encephalitis (type unspec.)	1	0	3	Boone
Influenzal meningitis ...	2	1	2	Polk, Hardin
Amebiasis	2	5	1	Johnson
Shigellosis	0	0	0	
Influenza	47	1078	0	Buena Vista, Polk

POLIOMYELITIS IN IOWA, 1957

The following tables give our initial summary of Iowa's 78 reported cases of poliomyelitis for the year 1957. The figures indicate that the poliomyelitis vaccine is very definitely reducing the incidence. The same phenomenon is being observed nationally. For the U. S., 30,000 cases were reported in 1955; 15,000 in 1956; and 6,000 in 1957.

The table on paralytic cases shows that only three Iowans who had had three injections of the vaccine developed poliomyelitis during 1957. None of them had a severe case. The one death attributed to poliomyelitis occurred to an individual who had had no vaccine.

We are sending this provisional report to health workers in all counties in Iowa, with the request that if the reports they have for their own counties vary in any particular from those contained in these tables, they should notify us so that a correction can be made before the publication of the final report.

PARALYTIC CASES

County	*Date of Onset*	*Age*	*Sex*	*No. of Injections*	*Date of Last Injection*
Benton	7-2-57	10	F	0	—
Benton	8-24-57	18	M	0	—
Buchanan	4-12-57	28	M	1	6 or 8 mo. before onset
Cerro Gordo	9-18-57	8	F	3	5-22-57
Delaware	7-18-57	22	F	0	—
Dubuque	10-8-57	32	F	0	—
Guthrie	5-7-57	18	F	0	—
Guthrie	9-23-57	5	F	3	Spring of 1957
Harrison	8-15-57	13	M	0	—
Harrison	9-3-57	13	M	0	—
Harrison	9-?-57	3	F	0	—
Monona	9-17-57	15	M	0	—
Osceola	8-6-57	45	F	0	— (Deceased)
Page	9-3-57	7	F	2	2-16-57
Plymouth	9-14-57	3	F	0	—
Ringgold	8-20-57	46	M	0	—
Story	7-9-57	28	M	0	—
Wapello	7-?-57	32	M	0	—
Warren	9-27-57	20	M	0	—
Webster	8-26-57	5	M	3	March, 1957
Woodbury	11-4-57	6	F	1	8-30-57

NON-PARALYTIC CASES

Allamakee	8-17-57	5	M	3	7-10-57
Benton	7-18-57	30	M	0	—
Black Hawk	8-7-57	19	M	2	?
Black Hawk	8-21-57	29	M	1	8-10-57
Black Hawk	6-24-57	34	F	0	—
Black Hawk	8-13-57	28	M	0	—
Black Hawk	9-17-57	15	M	0	—
Black Hawk	7-27-57	34	M	Unspec.	—
Boone	9-2-57	14	F	3	?
Cerro Gordo	9-24-57	6	M	2	7-20-57
Cherokee	9-10-57	35	F	0	—
Chickasaw	8-7-57	24	M	0	—
Clay	9-9-57	5	F	3	August, 1956
Clayton	9-24-57	18	M	0	—
Clinton	9-1-57	18	M	0	—
Decatur	9-4-57	4	M	1	?
Des Moines	8-12-57	10	F	3	6-11-56
Des Moines	7-20-57	28	M	2	5-14-57
Dubuque	8-16-57	12	M	Had Vaccine	No. of inj. unspec.
Dubuque	1-3-57	17	F	0	—
Greene	8-24-57	20	M	2	7-13-56
Greene	9-3-57	22	M	1	July, 1957
Hardin	8-25-57	28	F	0	—
Harrison	8-20-57	8	M	3	?
Henry	8-18-57	24	F	0	—
Jasper	1-10-57	47	F	0	—
Jefferson	9-2-57	12	F	3	?
Madison	8-21-57	17	M	2	?
Mahaska	8-19-57	26	F	0	—
Marshall	8-11-57	22	M	0	—
Osceola	8-20-57	11	F	0	—
Osceola	8-20-57	17	M	0	—
Page	5-8-57	7	F	0	—
Plymouth	8-6-57	25	F	2	1956
Plymouth	7-31-57	25	F	Unspec.	—
Polk	8-23-57	23	M	0	—
Pottawattamie	7-26-57	16	F	3	February, 1957
Pottawattamie	10-16-57	5	M	0	—
Pottawattamie	8-21-57	23	M	Unspec.	—
Sac	3-29-57	6	M	3	?
Sac	4-25-57	2	F	0	—
Sac	8-14-57	10	M	Unspec.	—
Scott	6-27-57	38	M	0	—
Sioux	10-26-57	3	F	3	January, 1957
Story	7-4-57	5	F	3	January, 1957
Story	8-1-57	23	M	0	—
Story	8-7-57	8	M	Unspec.	—
Tama	1-1-57	36	F	0	—
Wapello	9-15-57	5	M	0	—
Wayne	6-25-57	4	M	0	—
Woodbury	6-1-57	12	M	4	3 in 1954; booster in 1955
Woodbury	7-20-57	16	F	3	January, 1957
Woodbury	8-18-57	13	M	3	?
Woodbury	8-7-57	4	M	0	—
Woodbury	8-23-57	22	F	0	—
Woodbury	9-6-57	2	F	0	—
Woodbury	8-29-57	16	F	0	—

WOMAN'S AUXILIARY

to the

IOWA STATE MEDICAL SOCIETY

1958 Annual Meeting, Des Moines

PROGRAM

MRS. J. F. GERKEN, *Presiding*

Sunday, April 20

2:00-4:00 Pre-Convention Board Meeting, West Room, Hotel Savery—State Officers, Councilors, County Presidents, and Committee Chairmen

6:30 Dutch Treat Supper (all Board Members, Convention Committee Chairmen, and husbands), Des Moines Golf and Country Club

Monday, April 21

8:00-4:00 Registration, Mezzanine, Hotel Savery—All physicians' wives welcome

8:00-11:00 Hospitality Room—Terrace Room, Hotel Savery
Hostesses—Dallas-Guthrie Auxiliary—District V

9:30 Conference of Delegates—Terrace Room, Hotel Savery
Call to Order—Mrs. J. F. Gerken, Waterloo, President
Invocation—Rabbi Irving A. Weingart, Des Moines
Introduction of National Safety Chairman, Woman's Auxiliary to the American Medical Association, Mrs. John M. Wagner, Clarks Summit, Pennsylvania
Auxiliary Pledge—Mrs. G. C. McGinnis, Fort Madison.
"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation and ever sustain its high ideals."
Reading and Adoption of Convention Rules—Mrs. J. A. Downing, and Mrs. J. E. Dyson, Des Moines, Parliamentarians
Recommendations of Reading Committee (for acceptance of previous annual meeting minutes)
Treasurer's Report—Mrs. E. A. Vorisek, Des Moines
Report of Finance Committee—Mrs. R. E. Hines, Des Moines
Report of Auditing Committee—Mrs. E. A. Vorisek, Des Moines
Report of Revisions Committee—Mrs. B. F. Kilgore, Des Moines
Report of Nominating Committee (first reading)—Mrs. D. H. King, Spencer
Election of 1958-1959 Nominating Committee
"A Safety Program Is a Challenge"—Mrs. John M. Wagner, National Safety Chairman, Woman's Auxiliary
Introduction of Councilors and County Presidents
Information Exchange—"See Yourself"—Mrs. W. K. Hicks, Sioux City—Moderator
In Memoriam—Mrs. M. O. Larson, Hawarden

11:45 Recess for Luncheon

12:15 Luncheon Honoring Past Presidents, Terrace Room, Mrs. J. F. Gerken, Waterloo, Presiding
Luncheon Music—Mrs. Eugene Smith, Waterloo
Greetings—Mrs. L. R. Pearlman, Des Moines, President, Polk County Auxiliary
Response—Mrs. H. C. Merillat, Des Moines, State President-Elect
Introduction of Convention Chairman—Mrs. D. C. Wirtz, Des Moines
Introduction of Guests

2:00 "Speaking Freely"—Mrs. Arch E. Michel, Des Moines

3:00-4:30 Tea—Home of Mrs. Fred Sternagel, West Des Moines
All physicians' wives invited. Buses will leave Hotel Savery 3:00 p.m.

9:00-12:00 Spring Dance (Informal), Grand Ballroom. Hotel Savery
(Benefit Auxiliary Educational Loan Fund and American Medical Education Foundation)

Tuesday, April 22

8:00-12:00 Registration, Mezzanine Floor, Hotel Savery

8:00-11:00 Coffee—Hospitality Room, Terrace Room, Hotel Savery
Hostesses—Marshall County Auxiliary—District VI

9:30 Conference of Delegates—Terrace Room—All physicians' wives welcome
Report of Nominating Committee (second reading)—Mrs. D. H. King, Spencer
Election Instructions—Mrs. J. A. Downing and Mrs. J. E. Dyson, Des Moines, Parliamentarians
Election of Officers
Election of Delegates to National Auxiliary Convention
Report of Reference Committee

10:30 "Medicine's Best Ally—Its Woman's Auxiliary—" S. P. Leinbach, M.D., Belmond

11:00 Installation of New Officers—Mrs. L. R. Hegg, Rock Valley
Introduction of State Committee Chairmen
General Discussion on Local Committee Activity

11:30 Recess for Luncheon

ATTEND THE PRESIDENT'S COFFEE

Hospitality Room, 8:00-9:30
Monday and Tuesday Mornings

MEET YOUR STATE OFFICERS!

12:15 President's Luncheon—Terrace Room—Mrs. C. H. Flynn, Clarinda, presiding
Invocation—Solo—Mrs. Clifford Losh, Jr., Des Moines
Luncheon Music—Mrs. Eugene Smith, Waterloo
Introduction of Guests:
Mrs. John M. Wagner, Clarks Summit, Pennsylvania, National Safety Chairman, Woman's Auxiliary to the American Medical Association
Fred Sternagel, M.D., President, Iowa State Medical Society
Walter D. Abbott, M.D., President-Elect, Iowa State Medical Society and Chairman of Advisory Board
George H. Scanlon, M.D., Member of Advisory Board
J. H. Sunderbruch, M.D., Member of Advisory Board
R. F. Birge, M.D., Secretary, Iowa State Medical Society
D. L. Taylor, Executive Secretary of the Iowa State Medical Society
Community Service Award—Mrs. J. F. Gerken, Waterloo
Essay Contest Award—Fred Sternagel, M.D., President, ISMS
Inaugural Address—Mrs. H. C. Merillat, Des Moines
Presentation of Past President's Pin—Mrs. D. H. King, Spencer
Courtesy Resolutions—Mrs. R. F. Nielsen, Cedar Falls
Adjournment
2:30 "Family Fashions"—Tiny Debs
3:30 Post-Convention Board Meeting, East Room, Hotel Savery
7:00 Banquet, Grand Ballroom, Hotel Savery

OUR PRESIDENT SAYS—

The arrival of March sometimes gives us quite a jolt. Annual Meeting time is near, and perhaps there are many things left to be completed. Those of you who may not have held your district meeting may still do so if you hurry.

Have you mailed your report? It should be a record of your achievements and your leadership. Have you publicized the Annual Meeting in your own group? Have you visited every eligible physician's wife and invited her either to join your Auxiliary or to became a member-at-large?

Another reminder—Please send me your necrology lists promptly.

In this issue you will find the complete program for the Annual Meeting. Study it carefully and plan to attend as many sessions as possible. You will want to elect your delegates to the convention in plenty of time for them to make their plans. Remember that you are entitled to one delegate for each 25 members or major share of that number. However, each county Auxiliary, regardless of size, is entitled to one delegate in addition to its president. Members of the Board of Directors are also delegates.

Last but not least, remind your husband to make his hotel reservations early!

—Sue Gerken

DOCTOR'S DAY

Each year, more and more Auxiliaries are observing Doctor's Day on March 30. Information has recently been sent to you for your use in preparing a program for the observance of this occasion. Plan now to participate.

COUNTY AUXILIARIES

Black Hawk

At a meeting of the Woman's Auxiliary to the Black Hawk County Medical Society on January 21 at the home of Mrs. Russell Blanchard, Mrs. F. G. Loomis, Mrs. L. J. Henderson and Mrs. R. F. Nielsen discussed the principles of good painting and analyzed some of their own works. Then each of the members of the Auxiliary did a still life and submitted it to the group for criticism.

Plans were made for a Valentine Tea on February 8 for Future Nurses Club members and the personnel of the three Waterloo hospitals, at the home of Mrs. Richard Corton. Mrs. Richard Acker and Mrs. Maurice Wicklund were made co-chairmen for it.

Dallas-Guthrie

The Dallas-Guthrie Medical Auxiliary met for luncheon on Thursday, January 16, at Alice's Spaghetti Land, in Waukee. Eleven members and three guests were present, including our state president, Mrs. J. F. Gerken. Committee reports were given and discussed, and Mrs. Gerken conducted a question-and-answer period.

Des Moines

The February meetings at the Burlington Senior Citizens' Center were sponsored by the Woman's Auxiliary to the Des Moines County Medical Society. The Auxiliary provided transportation, refreshments, prizes and leadership. The co-chairmen for the project were Mrs. George Crow and Mrs. G. D. Jenkins.

Marshall

At a dinner meeting of the Marshall County Auxiliary on February 4, Mrs. Willard Marble announced that the group would offer a $10 prize for the best entry in the County in the AAPS Essay Contest. Mrs. D. Dale Harris reported on legislation under consideration in Congress; Mrs. William Wessels reported that she had received several new subscriptions to TODAY'S HEALTH; and Mrs. Milo Jefferies said that arrangements had been made for the group to sponsor a panel discussion of "Nursing as a Profession" during vocational guidance day at the Senior High School in Marshalltown.

Polk

Members of the Woman's Auxiliary to the Polk County Medical Society were guests of the Des Moines Attorneys' Wives at a dessert bridge party on January 31 at Hoyt Sherman Place, in Des Moines.

Pottawattamie

The new officers of the Woman's Auxiliary to the Pottawattamie County Medical Society are Mrs. Henning Matthiasen, president; Mrs. W. Clark Giles, president-elect; Mrs. Paul Pedersen, vice-president; Mrs. John Matthiasen, secretary; and Mrs. Paul Guggenheim, treasurer.

Wapello

The Woman's Auxiliary to the Wapello County Medical Society met on January 7 at the Ottumwa Country Club for a dinner meeting. There were 21 members present. Mrs. Ralph J. Selman reported that the high schools would be very happy to let students enter the essay contest that the Auxiliary is sponsoring for the American Association of Physicians and Surgeons.



Mrs. M. M. Wicklund and Mrs. R. D. Acker were photographed as they registered girls at the Future Nurses' convention in Logan Junior High School, Waterloo, on November 8.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. J. F. Gerken, Waterloo
President-Elect—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Greetings to the Physicians of Iowa

Another year of real progress has passed. During this period the College of Medicine and the State Medical Society have worked in even closer harmony:

1. A close working relationship between the College of Medicine and the ISMS Legislative Committee has made possible the presentation of a united front to the State Legislature.



2. We who are directly responsible for your College of Medicine appreciate the two excellent editorials which appeared in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY (Jan., '57, and Mar., '57). Such editorials give us assurance that the physicians of Iowa recognize the importance of medical education and research, and pledge it their support.

3. We especially thank those physicians who contributed to the S.U.I. College of Medicine through the American Medical Education Foundation.

4. We thank those of you who have served as preceptors. You have made a permanent contribution not only to a particular physician's life but to medical education and the practice of medicine.

5. The ISMS Educational Fund has made it possible, through loans, for many students to continue in medicine. It is hoped that character and scholarship, rather than inherited wealth, will continue to be the basis for selecting physicians.

6. The dedication of the new Medical Research Center this past year was a real milestone in the progress of the College of Medicine.

7. "Senior Day," sponsored by the Iowa State Medical Society, succeeded in bringing the senior student to a greater realization of the responsibilities he will shortly assume.

8. A close working relationship between the ISMS Subcommittee on Medical Education and Hospitals and the S.U.I. College of Medicine has been of great assistance to us.

9. I am proud to report that your College of Medicine has continued to make significant research contributions.

10. As dean, I want to express my personal appreciation to the physicians of Iowa. Your integrity and your concern for the College have made my work most pleasant and satisfactory. I invite you to continue making direct contact with the dean's office. We appreciate constructive criticism, suggestions and ideas. We do have limitations and problems which are not always immediately apparent, but within our framework, we intend to continue in our concern for and consciousness of the desires and thoughts of the physicians of Iowa.



NORMAN B. NELSON, M.D., DR. P.H.
Dean, College of Medicine
State University of Iowa

ACP Postgraduate Course at Iowa City

The American College of Physicians will present a postgraduate course on "The Principles and Practice of Internal Medicine" June 2-6, at the S.U.I. College of Medicine in Iowa City. Registration will be limited to 100 physicians, and the fees will be $30 for ACP members and $60 for nonmembers. Interested doctors are cautioned to seek reservations early. The program is as follows:

Monday, June 2

9:20 a.m.	"Physiology of the Veins"—J. W. Eckstein, M.D.*
9:40	"Recognition and Treatment of Unusual Cardiac Arrhythmias"—Ernest O. Theilen, M.D.
10:30	"Role of Thrombosis in Vascular Occlusion"—William E. Connor, M.D.
11:00	"The Management of Cerebrovascular Insufficiency"—Clark H. Millikan, M.D., The Mayo Clinic
11:45	CARDIAC CLINIC—Drs. L. E. January, Theilen, Eckstein and Connor
2:00 p.m.	"Diet and Atherosclerosis"—Margaret A. Ohlson, Ph.D.
2:30	"Contemporary Approaches to the Definitive Prophylaxis and Therapy of Human Arteriosclerotic Coronary Heart Disease" Jeremiah Stamler, M.D., asst. director, Cardiovascular Department, Medical Research Institute, Michael Reese Hospital, Chicago
3:45	"Modern Diuretic Therapy"—Walter M. Kirkendall, M.D.
4:15	CLINIC: "Unusual Heart Disease"—Drs. W. B. Bean, January and Theilen

Tuesday, June 3

9:00 a.m.	"Treatment of Thyrotoxicosis with Radioiodine"—Elmer L. DeGowin, M.D.
10:00	"Subacute Thyroiditis"—Robert E. Hodges, M.D.
10:45	"The Problems of Exophthalmos"—Henry E. Hamilton, M.D.
11:30	THYROID CLINIC—Drs. Higdon B. Elkins, Titus C. Evans (Ph.D.), Edward E. Mason, DeGowin and Hodges
2:00 p.m.	"Serum Insulin Levels in Health and Disease"—Charles H. Read, M.D.
2:30	"The Action of Insulin in Correcting the Metabolic Abnormalities of Diabetes Mellitus"—Rachmiel Levine, M.D., chairman, Department of Medicine, Michael Reese Hospital, Chicago.
3:45	"Experience With Hypoglycemic Agents —Especially Orinase"—Robert C. Hardin, M.D.
4:15	ENDOCRINE CLINIC—Drs. Arthur Sanders, Hardin, Hodges and Levine

Wednesday, June 4

9:00 a.m.	"Pathology of Lymphoma"—Emory D. Warner, M.D.
9:30	"Treatment of Lymphoma"—Willis M. Fowler, M.D.
10:00	"The Anemia of Vitamin Deficiencies"—Richard W. Vilter, M.D., professor and head, Department of Medicine, University of Cincinnati College of Medicine, Cincinnati
11:00	"A Useful Outline of Blood Coagulation" —Jack R. Carter, M.D.
11:30	CLINIC ON COAGULATION PROBLEMS—Dr. DeGowin, moderator
2:00 p.m.	"Megaloblastic Anemia"—Dr. Vilter
2:45	"Pulmonary Function Studies in Polycythemia"—George N. Bedell, M.D.
3:15	"Polycythemia Vera"—Raymond F. Sheets, M.D.
4:00	HEMATOLOGY CLINIC—Dr. H. E. Hamilton, moderator

Thursday, June 5

9:00 a.m.	"Approach to Patient With Pain in the Chest"—Dr. Bean
9:45	"Diagnosis and Treatment of Pulmonary Fibrosis"—Paul M. Seebohm, M.D.
10:45	"Physiologic Problems in Emphysema"—Ward Fowler, M.D., The Mayo Clinic
11:45	CLINIC: "Management of Acute Respiratory Insufficiency"—William K. Hamilton, M.D., moderator
2:00 p.m.	"Lung Function in Obese Persons"—Dr. Bedell
2:30	CLINIC: "Problem Cases, Acute and Chronic Lung Diseases"—Dr. Seebohm, moderator, and Drs. Eugene F. Van Epps, William R. Wilson, Ward Fowler and Bedell
4:00	CLINICAL PATHOLOGIC CONFERENCE—Dr. Bean
6:00	SOCIAL HOUR AND BANQUET (Guest speaker to be announced)

Friday, June 6

9:00 a.m.	"Histoplasmosis"—May Beth Godfrey, M.D.
9:20	CLINIC ON STAPHYLOCOCCAL DISEASE—Dr. Ian Maclean Smith, moderator
10:40	(Topic to be announced)—George S. Mirick, M.D., clinical professor of medicine, Johns Hopkins University College of Medicine
11:30	CLINIC ON ANIMAL DISEASES TRANSMISSABLE TO MAN—Drs. Irving H. Borts, Richard A. Tjalma (D.V.M.), Stanley M. Hendricks (D.V.M.), and Smith
2:00 p.m.	"Rare Causes of Gastrointestinal Bleeding"—Dr. Bean
2:45	"Use of Radioactive Labeled Fats and Proteins in Diagnosis of Malabsorption Syndromes"—Arthur W. Horsley, M.D.
3:30	"Ulcerative Colitis—A Systemic Disease" —James A. Clifton, Jr., M.D.
4:00	CLINIC: "Gastrointestinal Problems"—Dr. George H. M. Thornton, moderator.

* Except as otherwise noted, the speakers are faculty members at the S.U.I. College of Medicine.

Scientific Articles

The Management of Diabetes During Surgery

ROBERT C. HARDIN, M.D., ARTHUR SANDERS, M.D., AND WILLIAM K. HAMILTON, M.D.

IOWA CITY

AMONG THE MANY clinical problems in the treatment of diabetes mellitus is the management of patients who require surgery for some complication of the disorder. Nearly as frequently, an operation may be needed for some unrelated disease. The surgical procedures performed are no different from those done in the treatment of patients without diabetes, although operations for vascular disease are more frequent in diabetics than in the general population.

Any plan of management must encompass the whole range of surgery and provide for the long, difficult operation as well as for the short, simple one. Another aspect of the problem is its size. At the University Hospitals, roughly half of the diabetic patients admitted have an operation. They constitute approximately 2.5 per cent of all surgical patients. Operation on them is an everyday occurrence and must be considered a routine matter.

GENERAL PRINCIPLES OF MANAGEMENT

The difficulties in the treatment of diabetes during surgery and in the postoperative period arise mainly from interruption of the patient's usual eating routine. Food intake and insulin dosage normally balance each other, but when food is omitted for even a short period, accurate calculation of insulin requirement becomes difficult or impossible. Further complicating this situation are the variables inherent in the effects on metabolism that are produced by surgery, anesthesia, sedation, and changes in water and electrolyte balance. Individualization is necessary if diabetic patients are to be provided safe management in their course through surgery.

Dr. Hardin is a professor and Dr. Sanders an instructor in the Department of Internal Medicine, and Dr. Hamilton is an assistant professor of anesthesiology in the Department of Surgery at the S.U.I. College of Medicine.

The chief hazards to which the patient is exposed are hypoglycemia, acidosis and severe glycosuria, with water and electrolyte loss. Because of difficulty in detection, hypoglycemia is particularly dangerous during anesthesia and is the primary concern during surgery. If it is unrecognized, death may result. Hypoglycemia may occur postoperatively, but in this period acidosis and marked glycosuria become of equal importance. Clinically significant acidosis may appear in the course of a long operation, but there is not the immediate danger which attends hypoglycemia. Acidosis and severe glycosuria usually result from an inadequate dose of insulin. Acidosis may follow the administration of too little carbohydrate or a loss in the urine of a significant part of that given. Severe glycosuria, because of the accompanying water loss, may contribute to dehydration particularly in the postoperative period. In addition to inadequate insulin dosage, the administration of too much carbohydrate, particularly by the intravenous route, may be the cause. The prevention of these difficulties lies in balancing sufficient—but not excessive—carbohydrate with the correct amount of insulin so that hypoglycemia does not occur, and so that enough dextrose is utilized to prevent acidosis without severe, prolonged glycosuria.

This task is easiest when the patient's diabetes has been well controlled for some time before the operation. The insulin need is then known, metabolism is fairly normal and stored glycogen helps stabilize the blood sugar. When possible, it is wise to achieve this state before operation, but surgical treatment should not be delayed for that purpose if other indications demand a prompt attack. Indeed, some operations such as those for control of infection should be done at the earliest opportunity so that the subsequent maintenance

of normal metabolism will be achieved more readily. The absolute minimum of treatment of a diabetic patient before surgery consists of the correction of acidosis if it is present

During the past 30 years, the mortality among surgically treated diabetics has been reduced markedly.[1] In part, the reduction has been due to improved management of diabetes, but many other advances in medicine—particularly antibiotic therapy—have contributed greatly. Although gross death rates without reference to such factors as age, complications and severity of disease are difficult to compare, recent reports of fatalities among diabetic surgical patients, ranging from less than 2 per cent to 5 per cent[1, 2, 3] reflect the success of many plans of management which have been developed.[2, 3, 4, 5, 6] Most of the suggested methods include administration of insulin before surgery and of dextrose intravenously both before and during surgery. In others, insulin and dextrose are withheld until the immediate postoperative period.[7] When given before surgery, short-acting insulin, intermediate-acting insulin or a combination of the two types is employed. To lessen the likelihood of hypoglycemia during the operation, the patient's usual insulin dose is reduced. Various fractions of the preoperative daily requirement are used.[2, 4, 7] Scheduling of the operation early in the day is advocated by some to reduce the likelihood of hypoglycemia from continued action of insulin or coincidence of its major effect with the operation.[8]

For the past 12 years our practices at the University Hospitals have differed somewhat from these methods, but only in detail, not in objectives. Because of the large number of patients involved, we consider operations on diabetics a routine matter. Certain benefits accrue to the patient from this attitude. He may be scheduled at any time which, in a busy operating suite, allows assignment of all necessary assistants and a choice of surgical team, though such a choice would not be possible if a fixed hour were mandatory because the patient had diabetes. It also allows placement of infected patients at the end of the schedule. Secondly, the patient follows the same routine as all others undergoing surgery. The anesthesiologist orders preoperative medications and chooses the anesthetic agent. After surgery, the patient is taken to the recovery room for care by those regularly on duty there, people who are familiar with the problems of the early postoperative period. The only difference in the care of the diabetic patient from that of the non-diabetic is that in all of the successive steps close attention is given to his diabetes by those specifically charged with its management. It is their task to fit insulin dosage and the administration of fluids, dextrose and electrolytes to individual needs in relation to the type of surgical procedure, time of operation and the progress of the patient. Diabetic management is adjusted to the patient, his surgery and the disease for which it is done, rather than the reverse.

MANAGEMENT OF PATIENTS WITH CONTROLLED DIABETES

To accomplish this, a simple, basic plan has been evolved which, with some variation, has proved successful. The majority of our patients have operations of such nature that taking food is suspended at midnight before the day of operation. The following morning, the patient receives the type and dose of insulin he normally requires at the usual time. Subsequent doses are given according to the same plan. For each meal he is unable to take, he ordinarily receives 50 Gm. of dextrose intravenously, usually as a 5 per cent solution in water. This may be reduced in amount if his daily diet normally contains less than 150 Gm. of carbohydrate. The dextrose is given at a rate of approximately 20 Gm. per hour and is started at regular mealtime. The patient may be taken to the operating room while the fluid is being administered, or if his operation is scheduled later in the day, he may receive two "meals" before going to surgery. Sometimes the noon replacement is started during surgery. This regimen of substitution of dextrose for meals and giving of the usual insulin dose continues into the postoperative period until the patient is able to take a liquid diet. Usually this occurs in the evening of the day of operation or the following morning. The plan may be extended through the subsequent days if necessary.

An example of maintenance of the blood sugar level in an instance of operation early in the day is shown in Table 1. This patient received her usual dose of insulin. Breakfast and the noon

TABLE 1

EARLY OPERATION

Procedure—Radical Mastectomy
Anesthetic—Ethylene
Insulin—NPH—40 units and Regular—5 units, combined
Diet—1800 Calories—200 Gm. Carbohydrate
Dextrose—1000 ml. 5% in water

Time	*Event*	*Blood Sugar mg. %*
6:30 A.M.	Insulin Given	
7:15 A.M.		80
7:20 A.M.	Induction Anesthesia	
7:30 A.M.	IV Dextrose Started	
8:30 A.M.		143
9:20 A.M.		162
9:50 A.M.		185
10:20 A.M.		168
10:30 A.M.	Patient Awake	
10:50 A.M.		142

meal were replaced with 50 Gm. of dextrose intravenously. Because of nausea, the evening meal was substituted for in the same fashion. The next day, the patient could eat a soft diet. In the afternoon of the day of surgery, there was a 1+ glycosuria. There had been none before surgery, and there was none on the day following.

Table 2 shows the program for a patient whose operation was delayed until early afternoon. Basi-

cally, the regimen used was the same as that for the first patient. The amount of dextrose used to replace each missed meal was 40 Gm., since the usual daily intake had been 120 Gm. The patient resumed his normal diet on the evening of the day of operation, and the following day was aglycosuric. With the eradication of infection, the insulin dose was much reduced during the few days following surgery.

TABLE 2
DELAYED OPERATION

Procedure—Amputation of Toe
Anesthetic—Spinal Procaine
Insulin—NPH—25 units
Diet—1200 Calories (reduction)—120 gms. Carbohydrate
Dextrose—800 ml. 5% in water

Time	*Event*	*Blood Sugar mg. %*
7:00 A.M.		129
7:10 A.M.	Insulin Given	
7:15 A.M.	First IV Dextrose Given	
12:55 P.M.		110
1:00 P.M.	Second IV Dextrose Given	
1:20 P.M.	Anesthetic Administered	
1:35 P.M.		120
1:50 P.M.	Operation Begun	
2:05 P.M.		155
2:25 P.M.	Operation Complete	
2:35 P.M.		190
3:45 P.M.		160

With this as a basic plan, variations can be made to fit individual needs. The patient who is controlled with diet alone needs no replacement of meals until the second one has been missed. This and subsequent ones which are omitted should be replaced. In these cases, attention must be paid to the amount of sugar in the urine. If it increases or persists, more insulin is needed. Other special instances requiring variation from the basic plan include relatively minor procedures such as cataract extraction done under local anesthesia. Such patients can take the usual insulin dose and a liquid diet. Cardiac patients may not be capable of taking the volume of fluid which this plan employs. For them, we have found it best to omit insulin and intravenous dextrose before operation, and to administer fluids and small doses of insulin after surgery.

Replacement of meals on the second and third days, when necessary, should be supplemented with vitamin B and protein hydrolysate. Our goal, however, is to return the patient to his normal diet at the earliest possible moment. In those instances when this is prevented by prolonged nausea or contraindicated by the type of operation, small formula feedings through a naso-gastric tube have been useful. The formula can be made to conform with the preoperative diet in carbohydrate content and calorie value. It is divided into equal amounts and given at one- or two-hour intervals. Regular insulin is administered in equal doses every six hours. The total daily requirement is usually slightly less than the preoperative requirement.

MANAGEMENT OF PATIENTS WITH UNCONTROLLED DIABETES

Another problem is the operation that must be performed upon a patient with uncontrolled diabetes. Often little can be determined about such a patient's current insulin requirement. If acidosis is present, proper steps must be taken to correct it. Surgery should be delayed for this purpose, but it is not necessary to wait until all evidence of acidosis has disappeared. The operation may proceed when the acetonuria has fallen below 2+ and the CO_2 content of the serum is approximately 75 per cent of normal. This may entail a delay of from four to six hours. If acidosis is not present and the insulin requirement of the patient is not known, five to ten units of regular insulin may be given every four to six hours. We prefer to give dextrose intravenously to all such patients during surgery. In most of them, the blood sugar will be quite high postoperatively, with the danger of dehydration from the increased output of urine. This demands close attention in order that corrective measures may be taken. After two or three days of this sort of management, enough will be known of the patient's insulin requirement so that the frequent, small doses can be abandoned and a more usual regimen established.

ANESTHESIA FOR DIABETICS

The anesthetic management of the diabetic patient who is to undergo surgery requires special consideration. This is related to the general plan of anesthesia and not to the choice of any particular agent or technic. The problems in the management of diabetes during surgery are the result of interruption of the usual diet and alteration of metabolism following anesthesia and related events. The anesthetist must concern himself with both factors. At the present, there is no convincing evidence that any drug commonly used to produce anesthesia has any inherent superiority or provides increased safety for the diabetic. Without a specific agent peculiarly suited to diabetics, the anesthetist uses those with which he is most skilled and which fit the requirements of the operation.

To minimize the need for interruption of normal eating, premedication and anesthesia should be of the types and amounts which produce the least postoperative depression, nausea and vomiting. Success in having a patient awake enough to eat without nausea will facilitate his postoperative care. Inflation of the stomach by positive airway pressure should be avoided, or it should be relieved if prevention has been impossible. In the postoperative period, analgetic drugs frequently cause anorexia and nausea, thereby delaying resumption of normal eating. It may be wise to change drugs or reduce dosage. In the majority of cases, analgetics are not needed, and serious thought should always be given to the question

of whether or not they are really necessary. Recently several drugs, such as chlorpromazine and promethazine, have been advocated for the relief of nausea and vomiting. Evaluation of these drugs, however, has as yet failed to reveal convincing proof of consistent results. They may be beneficial, but one should remember that some depression often results from their use. There is evidence that administration of ether results in elevation of the blood sugar. This has led to the opinion that ether should not be used in anesthetizing the diabetic patient. It may be the safest agent in the hands of some anesthetists, however, and the diabetic should not be denied this security. Other agents also elevate the blood sugar levels.

A commonly held belief is that regional anesthesia offers the best solution to the diabetic's problems. Proof of any increased safety is lacking, and there are some real disadvantages. The patient is subjected to noises, odors and needle pricks which some people find quite objectionable. Regional anesthesia frequently does not provide the degree of comfort for the patient that general anesthesia does. In the absence of known, specific benefit, it has nothing to recommend its routine use in diabetics. Good regional anesthesia is excellent for some patients, but in each patient the method of anesthesia is an individual problem.

Anesthesia in emergency surgery for a diabetic in acidosis should be modified by the realization that such a patient is very ill. He requires only small amounts of depressive drugs for premedication, anesthesia and postoperative pain relief. It must be remembered that increased respiration is an important means of compensation for metabolic acidosis. Therefore, one must avoid equipment which permits rebreathing or interferes with respiratory exchange by adding resistance. Drugs which depress respiration or weaken muscles may compromise respiration. They must be used sparingly and with constant evaluation of respiratory adequacy. The anesthetist must be prepared to assist the patient with breathing when depressant drugs are used.

The diabetic patient, as are all others, is entitled to the safest anesthesia that the anesthetist can provide. It is far more important that the anesthetist be concerned with the proper conduct of the anesthesia than with the choice or elimination of specific drugs or technics.

MORTALITY AMONG DIABETIC SURGICAL PATIENTS

Statistical records for the year 1954 have been obtained from the Surgical Coding Service. In that year 12,081 surgical procedures requiring anesthesia were done at the University Hospitals. Of them, 292 (2.41 per cent) were performed on diabetic patients. Table 3 lists the operations by region or system and includes four spontaneous deliveries. The operations were similar to those done on non-diabetics, except that amputation was much more frequent. There were no deaths among diabetic patients during surgery. Five died in the postoperative period—one each on the second, fifth and twenty-sixth days, and two on the ninth day. The gross death rate from all causes was 1.71 per cent. Deaths from all causes in the first 30 days among the 12,081 patients who underwent surgery numbered 252 (2.08 per cent). Thus, the rates among diabetics and non-diabetics were essentially the same. Table 4 shows this relationship.

TABLE 3

OPERATIONS ON DIABETICS—1954

Operations	*Major*	*Minor*	*Total*
Brain, Cord & Sympathetics	21		21
Eyes	1	17	18
Ear, Nose and Throat	1	11	12
Thyroid	3	2	5
Neck	1	1	2
Breast	3	1	4
Thorax	9		9
Abdomen	37		37
Pelvis	13	20	33
Urinary Tract	33	15	48
Extremities	75	14	89
Miscellaneous	1	9	10
Spontaneous Delivery			4
	TOTAL		292

TABLE 4

DEATH RATES IN SURGICAL PATIENTS

Total Number of Operations in 1954	12,081	
Deaths in first 30 days	252	
Per cent		2.08
Total Number of Operations on Diabetics	292	
Deaths in first 30 days	5	
Per cent		1.71

It is difficult to determine the role of diabetes in the five deaths which occurred. In one instance it appears to have contributed little, if at all. This patient had mild diabetes requiring no insulin, and he died of acute renal failure which had had an abrupt onset immediately after transurethral resection. Another had had uremia before operation and succumbed five days postoperatively with an increased degree of azotemia. No autopsy was obtained, and the possibility of intercapillary glomerular sclerosis cannot be ruled out, but it is improbable that any acute complication of diabetes played a part in the death. Two patients died of sepsis. Both had fractured hips treated by open reduction and developed wound infections. One had severe coronary sclerosis and myocardial insufficiency as well. Neither experienced hypoglycemia or acidosis, but it is impossible to say that diabetes did not contribute indirectly to their deaths. The fifth patient died suddenly just before breakfast on the second postoperative day. She had progressed nicely up to that time and had had neither hypoglycemia nor acidosis. The physician called to her bedside assigned coronary occlusion as the cause of death. The hour, the suddenness of the death and the known relationship between low levels of blood sugar and coronary occlusion suggest the possibility of hypoglycemia which can neither be proved nor dismissed.

SUMMARY

Among diabetics, postoperative deaths from acute complications may be prevented through careful attention to maintenance of adequate blood sugar levels and utilization of sufficient dextrose. Many satisfactory methods for accomplishing this have been developed. At the University Hospitals, primary emphasis is placed on the surgical disease, and the treatment of diabetes is fitted to the requirements of the patient and his operation. A simple plan has been evolved which, with individual variations, reduces the chance of death on the operating table from hypoglycemia and postoperatively from acute complications of diabetes. The mortality among diabetic surgical patients has been no larger than that among all other surgical patients.

REFERENCES

1. Blaisdell, E. R.: Medical management of surgical diabetic. J. Maine M. A., 45:214-217, (Aug.) 1954.
2. Joslin, Elliott P., and others: The Treatment of Diabetes Mellitus, Eighth Edition. Philadelphia, Lea & Febiger, 1946, ch. 26.
3. Rolland, C. F.: Diabetes mellitus in surgical patients. Brit. M. J., 1:737-740, (Apr. 5) 1952.
4. Cochrane, H. A., and Gross, L.: Medical problems in diabetic surgery. New York J. Med., 51:2403-2406, (Oct. 15) 1951.
5. Duncan, Garfield, and others: Diabetes Mellitus; Principles and Treatment. Philadelphia, W. B. Saunders Company, 1951, pp. 221-225.
6. Pratt, T. C.: Diabetic as surgical risk. Bull. New York Acad. Med., 26:786-802, (Dec.) 1950.
7. Barach, Joseph H.: Diabetes and Its Treatment. New York, Oxford University Press, 1949, pp. 158-162.
8. Sprague, R. G.: "Management of the Surgical Diabetic Patient." In: Christopher, F., ed.: A Textbook of Surgery, Fifth Edition. Philadelphia, W. B. Saunders Company, 1949, p. 1474.

Insulin Therapy of Diabetic Children

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INSULIN THERAPY of diabetic children requires careful and thoughtful consideration if it is to be successful. "Rules of thumb," such as 5 units for each 1+ of sugar in the urine, may be adequate in the treatment of adults with diabetes, but are not satisfactory in the treatment of children. In this age group, the types of insulin used, their dosage and the times of their administration must be altered to meet the needs of the individual child. No one program of insulin therapy is satisfactory for all diabetic children.

The administration of insulin is, of course, only a part of a total diabetic program; diet and what might be called "emotional support" are also integral components. Although these factors are mutually interdependent, it is quite possible to consider them separately.

The policy of this clinic is not to control diabetes by manipulations of the diet. On the contrary, the child is encouraged to eat the amount of food which satisfies his appetite. The carbohydrate content of the diet thus determined is then kept relatively constant from day to day, but considerable variation in total calories is allowed. The main features of this diet have been presented elsewhere.[1] Sufficient insulin is then given to meet the patient's requirements under these dietary circumstances.

In planning the insulin therapy of a diabetic child, the principles to be followed and the objectives to be reached must be clearly defined. The program should be simple and rational, so that the child and his parents can understand it and carry it on at home. It should result in relative stability of blood sugar throughout the entire day, without wide swings from very low to very high levels. The total amount of insulin given should be that amount which will allow sufficient utilization of ingested glucose to ensure normal growth, prevent hepatomegaly, avoid acetonuria and allow freedom from the symptoms of polyuria and polydipsia. Though no exact statement can be made as regards what constitutes excessive glycosuria, amounts of glucose in a 24-hour urine much in excess of 10 per cent of the daily carbohydrate intake are generally incompatible with the criteria just listed. Equally important, however, is the avoidance of frequent hypoglycemic episodes, for these may not only result in significant brain damage but also cause such a high level of anxiety in the child and in his environment that his normal emotional growth and development may be jeopardized. Minimal glycosuria and freedom from shocks are not incompatible.

One of the first steps in undertaking the regulation of the newly diabetic child is to decide how much insulin should be given him and what types of insulin should be employed. It has been reported that the average insulin dosage of diabetic children is 0.4 units per pound of body weight.[2] This amount is used as an initial dose level, and has proven satisfactory. This dosage is usually inadequate in the first two or three weeks, and consequently larger amounts of insulin may have to be administered. Later, the patient usually goes through a period in which there is a marked decrease in his insulin requirements, and under those circumstances his dosage must be reduced. After a variable length of time, his insulin requirements again rise and often exceed previous levels. When increasing and decreasing insulin, it is desirable to keep in mind that the effect of

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insulin varies as the logarithm of the dose. Thus, when the dose is small, changes should be made by not more than one unit per day. However, if the dose is large, significant increases in effect will be obtained only when the increments are in the magnitude of two to five units.

A relatively large number of insulin preparations are presently available. These inclule crystalline zinc, globin, NPH, semi-lente, ultra-lente, lente and protamine zinc insulins.

Because of its increased stability, crystalline zinc insulin (CZI) has now largely, if not entirely, replaced "regular" (amorphous) insulin. Injected subcutaneously, it achieves its maximum effect in three hours and, except when given in excessive amounts, is largely dissipated in eight or nine hours. When it is administered intravenously, its maximum effect is seen in one hour.[3] It should be noted that it is the only insulin preparation that can be given intravenously. Its particular areas of usefulness are in the treatment of diabetic coma and in combination with other insulins in the long-term treatment of diabetes.

Globin and NPH are commonly called "intermediate" insulins, and are similar in their effects on blood sugar levels. In the first hour or two after administration, they cause no appreciable change in the blood sugar. An increasing effect is then noted, which reaches its maximum at about eight hours. The hypoglycemic effect then diminishes and after 18 hours is no longer apparent in most patients. Both of these insulins may be mixed with the crystalline zinc type. When this is done, the total and temporal effect of crystalline zinc insulin is not appreciably altered. Thus, it is possible to prepare an insulin mixture which has the quick-acting effect of CZI and the longer-acting effect of globin or NPH. However, it must be stated that the author has abandoned the use of globin insulin because of his repeated experience that relatively severe hypoglycemic shocks may occur unexpectedly, with essentially no advance symptoms to warn the patient.

The lente insulins are a relatively new and interesting family of insulins. Hallas-Møller[4] has reported that insulin in acetate buffer at a pH above 4.4 and in the presence of two parts of zinc per million precipitates. Within the pH range of 4.7 to 5.7, the otherwise amorphous precipitate is crystalline and is subsequently essentially stable. Both the amorphous and crystalline preparations remain completely insoluble in the pH range from 5 to 8. In clinical trials, it has been found that the amorphous form has a more rapid effect (semi-lente) than does the crystalline preparation (ultra-lente).[5] Unpublished studies carried out in this clinic have known that in children the maximal hypoglycemic effect of semi-lente usually occurs between four and five hours after injection, and the maximal effect of ultra-lente usually occurs at 16 to 17 hours. Since the semi-lente and ultra-lente insulins are mutually miscible, mixtures of the two in varying proportion have considerable differences in time of maximum activity. One such mixture is lente insulin. This preparation is 30 per cent semi-lente and 70 per cent ultra-lente. Its range of activity seems to be almost identical with that of NPH insulin. If CZI (pH 2.7 to 3.5) is mixed with the lente insulins, the added soluble insulin is converted to either semi-lente or ultra-lente, depending upon the final pH of the mixture, and this cannot be reliably predicted. Therefore, it is not possible to prepare an insulin mixture which has both the quick-acting effect of CZI and the more prolonged effect of either ultra-lente or lente insulin.[6]

Protamine zinc insulin (PZI) is a long-acting insulin with maximum effect in the second 12 hours after its administration. The lowest blood sugar values are usually observed between 20 and 23 hours. It is usually unsatisfactory when used alone in childhood diabetes, but it can be effectively employed in combination with crystalline zinc insulin. There being an excess of protamine in the commercial preparation, when PZI and CZI are mixed in a syringe, part of the latter is converted into PZI. In the past, it was common to mix two parts of CZI with one part of PZI on the assumption that approximately one-half of the CZI would combine with the excess protamine. However, the ratio of the excess protamine varies from 1.5:1 to 1.9:1. Thus, mixing of commercial CZI and PZI yields final proportions of short- and long-acting insulins which are extremely variable, and the administration of such a mixture produces unpredictable effects upon the blood sugar. This difficulty can be avoided by administering the two insulins through separate syringes and at separate sites.

From this brief review of the characteristics of the presently available insulins, it may be seen that to attain the objectives of insulin therapy which have been described above, a combination of CZI with one of the intermediate insulins and/or PZI is necessary. One such combination of of insulins which is usually satisfactory is CZI and PZI when administered in separate syringes and at separate sites. On initiation of treatment, 40 per cent of the total insulin is given as CZI, and the remainder as PZI. All urine voided in the intervals between breakfast and lunch, lunch and supper, supper to one hour before breakfast and from one hour before breakfast to breakfast is collected in separate containers, and each is tested for sugar and acetone. Subsequent adjustments of the two insulins are made in accord with the results of the urine tests. If the patient is spilling in the specimen voided immediately before breakfast, the PZI is increased. The CZI dose is adjusted in accord with the daytime urines. A mid-morning snack is nearly always necessary

to allow a large enough dose of CZI to continue exerting an appreciable effect during the afternoon and yet not cause a late-morning hypoglycemic episode. After regulation has been achieved, as judged by the urine tests, the blood sugar is measured at 10 a.m., 2 p.m., 4 p.m., 7 p.m., 11 p.m. and 7 a.m. Unrecognized hypoglycemia and the extent of the diurnal variation of blood sugar are thereby determined, and a decision can be made as to the adequacy and appropriateness of therapy.

When at home, the patient on this insulin program tests his urine four times a day for reducing substances. He tests the pre-noon, the pre-supper, the bedtime and the second voided specimen before breakfast. He takes one more unit of PZI than is enough to result in a trace of sugar in the second voided specimen. Thereafter, if that specimen is aglycosuric on four successive mornings, he reduces his protamine zinc by one unit every second day until he again shows a trace, and then again increases the dose by one unit. If this regimen is followed, insulin shock due to PZI is very rare. The CZI dose is adjusted according to the noon test. It too should consist of one more unit than that amount which results in a trace.

The patient using CZI and PZI in this way usually shows glycosuria at bedtime. If this is associated with enuresis, nocturia or a 24-hour glycosuria greater than 10 per cent of the carbohydrate ingested, the program has to be considered unsatisfactory, and appropriate changes must be made.

An equally satisfactory insulin regimen is a mixture of CZI and NPH before breakfast and NPH alone before supper. From experience, it has been found that about 65 per cent of the total insulin should be given before breakfast. The usual proportions of the mixture are 15 units of CZI to 50 units of NPH. Subsequent alterations are made according to the results of the lunch and supper urine tests. For example, if the patient consistently spills at noon but is aglycosuric at supper, the CZI is increased 5 units and the NPH is decreased 5 units. No change is made in the total amount of insulin administered until the tests at those two periods are the same. Similarily, if the patient shows a tendency to hypoglycemia in the early morning hours, replacing the supper NPH by the same mixture used in the morning or by CZI alone may be effective. An occasional patient is very satisfactorily controlled through the use of only a morning injection of the CZI-NPH mixture.

Most children prefer to receive their insulin injections before breakfast, rather than to have one before breakfast and the second before supper, even though the total numbers of injections remains the same. In the past year, considerable experience has been gained with a regimen of insulin therapy which allows this and which is essentially a combination of the two regimens described above. It consists of giving CZI and NPH in one syringe, and PZI in another, both before breakfast. Sixty-five per cent of the total dosage is administered as a 15:50 CZI-NPH mixture, and 35 per cent as PZI. Subsequently, the PZI dosage is controlled by the quantity of sugar in the second voided specimen before breakfast, and the proportions of CZI to NPH are controlled by the results of the noon and supper specimens. To date, it appears to be superior to either of its predecessors in terms of level of control attained. Despite the seeming complexity of using three different insulins, the patients and their families have had no difficulty with it.

Insulin therapy consisting of NPH, globin or lente insulin as a single injection before breakfast has been found unsatisfactory. The blood sugars of patients receiving any of these three insulins in this way are characterized by high levels in the mid-morning, normal or hypoglycemic levels in the late afternoon, and gradually rising levels during the evening to a maximum hyperglycemia before breakfast. Efforts to decrease the total 24-hour glycosuria result in frequent hypoglycemic episodes in the mid-afternoon.

Mention must be made of the alterations necessary in insulin dosage when the patient is suffering from an intercurrent illness. If the diabetic child develops a febrile illness such as a pharyngitis, the amount of insulin which previously has been adequate may no longer be so. This is reflected in an increased glycosuria and, frequently, acetonuria. Should the urine show 3+ or 4+ sugar and the presence of acetone, the child should receive not only his usual insulin dosage but also an additional amount of CZI. The recommended amounts of extra CZI are 10, 15 or 20 per cent of his total daily insulin requirements, depending on whether the acetonuria is trace, moderate or strong. Thus, if the child who is taking a total of 40 units of insulin has both a glycosuria and a moderate acetonuria at his noon tests, he should receive 8 units of CZI before his meal. Additional amounts should be given before supper and at the parents' bedtime

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if the same conditions obtain. At the same time, the patient should receive appropriate treatment for his infection.

Another common problem requiring alterations in the insulin therapy is that of the child who has a gastrointestinal upset and, in consequence, is vomiting. If this begins in the early morning—and so often it seems to—it quickly becomes evident that the child probably will not be able to eat and retain his usual breakfast. Such a patient should be given nothing by mouth until he has not vomited for two hours. Then, at precisely 15-minute intervals, he should be given one or two teaspoonfuls of a sweet carbonated beverage for the next two hours. Thereafter, larger amounts may be given and his normal diet gradually restored. This simple program minimizes the length of time that the vomiting will continue. At the same time, his insulin must be continued. If the patient is showing glycosuria, he should receive his usual insulin dosage at the regular time. On the other hand, if he is aglycosuric, the amount of insulin administered should be reduced by 50 per cent. Subsequently, it may be necessary to administer small doses of regular insulin, as described above, if glycosuria and—especially—if acetonuria occurs. Should the vomiting persist and the patient become aglycosuric and particularly if he also develops acetonuria, a retention enema consisting of two ounces of corn syrup and one ounce of water will prevent serious hypoglycemia. Management of intercurrent illnesses in these ways will almost entirely prevent the occurrence of diabetic acidosis.

If the insulin therapy is to be satisfactory at home as well as in the hospital, it is of the utmost importance that the parents—and the child, if he or she is of responsible age—should understand it. They should be taught exactly when each of the insulins used has its maximum effect, as well as the duration of the effect. They should know how to increase and decrease the insulin according to the child's varying needs. They should be especially aware of the need for altering the amount given under the circumstances of intercurrent infections. Evaluation of their knowledge and their use of it should be made at each return visit, and advantage should be taken of every opportunity to clear up any possible misunderstandings.

SUMMARY

The insulin therapy of diabetic children as currently practiced in this clinic has been briefly reviewed. The principles and objectives have been stated, and the insulins and methods used have been described. Emphasis has been placed upon the need for individualizing the treatment of each patient.

REFERENCES

1. Read, C. H., and Baer, P. E.: Diabetes in children; summary of roundtable discussion. Pediatrics, **17**:605-611, (Apr.) 1956.
2. Kelly, H. G., Rao, P. T., and Jackson, R. L.: Insulin requirements of children with diabetes mellitus maintained in good control. AMA Am. J. Dis. Children, **89**:31-41, (Jan.) 1955.
3. Peck, F. B.: Action of insulins. Proc. Am. Diabetes A., **2**:67-83, 1942.
4. Hallas-Møller, K., Petersen, K., and Schlichtkrull, J.: Crystalline and amorphous insulin-zinc compounds with prolonged action. Science, **116**:394-398, (Oct. 10) 1952.
5. Hallas-Møller, K., Jersild, M., Petersen, K., and Sch. lichtkrull, J.: Zinc insulin preparations for single daily injection; clinical studies of new preparations with prolonged action. J.A.M.A., **150**:1667-1671, (Dec. 27) 1952.
6. Nabarro, J. D. N., and Stowers, J. M.: Insulin zinc suspensions. British M. J., **2**:1027-1030, (Nov. 7) 1953.

New Head of Pediatrics At S.U.I.

Dr. Wallace W. McCrory, associate professor of pediatrics at the University of Pennsylvania, will become professor and head of pediatrics at the State University of Iowa's College of Medicine on July 1. Dr. McCrory will succeed Dr. Charles D. May, who resigned last August to become executive director of the Physicians' Council for Information on Child Health.

The new department head received his bachelor's degree and his medical degree from the University of Wisconsin, the latter in 1944. He interned at Philadelphia General Hospital, and took a residency at the Children's Hospital of Philadelphia.

In 1946-47 Dr. McCrory was chief pediatrician at the Walter Reed General Hospital. He held the same title at the Fort Bragg Station Hospital in 1947-49. He received a Lewis Cass Ledyard, Jr., Fellowship in Pediatric Research at the Cornell Medical School in 1949-50, and became an assistant instructor in pediatrics at the University of Pennsylvania in 1950. He was appointed associate professor in 1955. He is a member of Sigma Xi and Alpha Omega Alpha. He was certified by the American Board of Pediatrics in 1950.

Foot Complications in Diabetes

CARROLL B. LARSON, M.D.

IOWA CITY

Ulcers and associated neuro-arthropathies of the feet are serious and disabling complications in diabetes. They are disabling because they lead to protracted periods of non-weight-bearing, and they are serious because if associated with infection and/or vascular insufficiency, they can threaten the loss of the extremity.

The exact cause of the painless ulcers and neuro-arthropathies is unknown. The recent work of Fagerberg is of interest in that he has demonstrated a specific angiopathy in the vaso vasorum of vessels in diabetes. These changes occur in blood vessels serving the peripheral nerves, the retina and kidney (Kimmelstiel-Wilson syndrome). Diabetic neuropathy could have the same pathogenesis as retinopathy and nephropathy, depending upon whether the angiopathy involves the blood vessels to nerves, to retina, to kidney or to specific soft-tissue areas. Matthews found signs of neuropathy in 37 per cent of all diabetic patients and related an increase with age, duration, severity and poor control of the diabetes. Over-eating and excessive weight are prominent features in diabetic patients with foot troubles. It cannot be overlooked that in 8 per cent of the patients with foot lesions the diagnosis of diabetes is first suspected because of the ulcers and neuropathy.

Examination of the foot with ulcers will show wide variation in signs of circulatory insufficiency and neurologic deficit. Commonly, the dorsalis pedis pulse will be normal, the skin about the ulcer will be anesthetic and the vibratory sense diminished over the lower half of the leg. This would make it appear that the ulcer in such a foot is more closely related to the nerve changes than to circulation. However, the same ulcer will heal if kept absolutely free from weight-bearing pressure in spite of the neurologic deficit. The ulcer will be likely to recur when weight-bearing is resumed, and thus it would seem that weight-bearing or pressure to the ulcer area is the determining factor. Since ordinary pressure on a non-diabetic foot does not cause ulcers, the diabetic foot must be vulnerable to pressure due to some lowered local tissue-resistance factor, most likely a diminished circulatory capacity. The associated neuropathy renders the ulcer painless, and the importance of this fact is obvious—the patient has no warning that might prompt him to prevent the ulcer, and no reason for thinking seriously of treatment after it has occurred. This accounts for the fact that diabetic ulcers are brought belatedly to the doctor's attention, often after secondary infection has occurred. The duration and extent of the infection often will be the most important issues in the decision for or against amputation.

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CASE REPORTS

Four case reports will illustrate the variability of the physical findings, and the x-ray appearance of the bone changes in neuropathy with or without infection.

Case 1. The accompanying illustration (Figure 2) is an example of the early x-ray sign of neuropathy involving the distal shaft of the fifth metatarsal. Note the narrowing of the shaft and the disappearance of the metatarsal head. The surrounding soft tissues are extremely liable to trophic ulcers if undue pressure occurs from prolonged standing, tight shoes, etc. Circulatory insufficiency is not a problem in this foot.

Case 2. The patient, a female 55 years of age,



Figure 1



Figure 2

had had diabetes for 15 years controlled by diet. The symptoms in her right foot appeared to be those of acute cellulitis over the dorsum of the foot and big toe. Surgical drainage was instituted, but no pus was encountered. The wounds became secondarily infected, and amputation of the first and third toes was done to control the infection. A draining ulcer developed under the third metatarsal head. The x-ray (Figure 3) shows new periosteal bone along the third metatarsal shaft in response to the infection which also involved the metatarso-phalangeal joint. The fifth metatarsal shaft shows narrowing and loss of the metatarsal head as a result of neuro-arthropathy which remained stationary in the two-year interval between repeat x-rays. Both feet had good dorsalis pedis pulsations and mild diminution of vibratory sensation.

Case 3. The patient, a female aged 55, had had poorly controlled diabetes for 12 years. Her foot trouble began with pain, and gradually the foot changed shape. An ulcer formed under the first metatarsal head before the shape change, and an ulcer developed under the cuboid during the shape change. The x-ray (Figure 4) illustrates a rocker foot produced by neuro-arthropathy of the mid-tarsal joints. It can be seen that the cuboid is the prominent weight-bearing point; hence it was a likely area for an ulcer. Operative correction could restore the arch and eliminate the ulcer by mid-tarsal wedge resection of the foot.

Case 4. A man 59 years of age had had diabetes for 15 years, controlled by 60 units of NPH daily. For five years he had ulcers under several metatarsal heads. The ulcers on the left (Figure 5) had healed several times following periods of pro-



Figure 3



Figure 4



Figure 5

longed bed rest, but the right big toe continued to drain. There had never been pain, all pulses were present and the vibratory sense was diminished 50 per cent. This man preferred a wheelchair existence to surgery.

DISCUSSION

The feet of patients with diabetes, however mild, should be examined repeatedly for early signs of pressure points, ulcers or neuropathy. Every patient should be instructed to:

1. Report first signs of pressure redness or open sores
2. Abstain from walking on a sore foot
3. Use no heaters, drugs or chemicals without a doctor's order
4. Control the diabetes carefully by means of diet and insulin as prescribed.

When ulcers have developed, the treatment should be immediate bed rest and alternating elevation, combined with local cleanliness to prevent infection. Antibiotics are helpful, but not a substitute for non-weight-bearing and cleanliness. No special local therapy to the ulcer is necessary. Once the ulcer has healed, recurrence must be prevented by correcting foot mechanics, and eliminating pressure points such as cock-up toes through the use of pads, proper shoes and minor operative procedures if necessary. In the case of uncontrolled infections, surgical excisions should be planned in an attempt to gain primary closure. Surgery should be preceded by a careful vascular survey, since obvious vascular insufficiency would demand amputation at the proper level.

By vigilant application of the principles outlined, diabetic ulcers can be treated and the patient can be enabled to retain his own feet for ambulation for months or years, dependent upon the vascular sufficiency.

REFERENCES

1. Committee on Diabetes, Massachusetts Medical Society: Surgical lesions of diabetic feet. New England J. Med., 253:685-688, (Oct. 20) 1955.
2. Matthews, J. D.: Neuropathy in diabetes mellitus. Lancet, 1:474-476, (Mar. 5) 1955.

3. Root, H. F.: Medical aspects of diabetic surgery. New York State J. Med., 42:2296-2302, (Dec. 15) 1942.
4. Fagerberg, S.: Studies on pathogenesis of diabetic neuropathy. Acta Medica Scandinavia, 159:59-62, fasc. 1, (Oct. 30) 1957.
5. Miller, D. S., and Lichtman, W. F.: Diabetic neuropathic arthropathy of feet. AMA Arch. Surg., 70:513-518, (Apr.) 1955.
6. DeTakats, G.: Peripheral neurovascular lesions in diabetes. Proc. Am. Diabetes A. (1945), 5:181-199, 1946.

Diseases of the Skin in Diabetes

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IN MOST INSTANCES, the skin diseases of diabetics are the same as those of non-diabetics. There are, however, three groups of skin conditions that are of special importance in such patients. First, diabetics have a tendency to incur infections—mycotic and pyogenic—more frequently than non-diabetics, and the infections are usually more severe. Second, the skin eruptions associated with disturbances of fat metabolism are almost unique to the severe diabetic. Finally, the first symptoms or signs of arterial occlusive disease often appear on the feet of a diabetic.

MONILIA INFECTIONS

Monilia (Candida) infections are common in the patient with diabetes, and are most likely to occur in the individual whose disease is in poor control. These have a marked tendency to occur in the intertriginous areas where there are apposing surfaces of moist skin which, along with the added glucose present, offer optimal conditions for the growth of monilia. Perleche, erosio interdigitalis and monilial paronychia are minor and less common manifestations of this condition.

Monilial infections cause clinical symptoms chiefly in the anogenital area of women. There, the conditions for growth of monilia are ideal, with moisture, glucose and cellular debris furnishing an ideal culture medium.

The local findings are those of a low-grade dermatitis, with redness, scaling and sometimes oozing, most often involving the vulva but occasionally spreading to the groins and anal regions, where skin surfaces are in apposition. Figure 1 shows the thickening of the skin of the vulva, with the associated patches of whiteness characteristic of monilial infection. The layman's term "galding" well describes the local condition, and itching, burning and discomfort are the complaints of most patients. The presumptive diagnosis can often be made by inspection and can be proved by direct preparations of the skin in 10 per cent sodium hydroxide or by culture. There may or may not be an associated vaginal monilial infection.

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Local treatment will be successful only if the diabetes is well controlled, and in many patients control of the disease eliminates the difficulty. Local treatment has two aims—to control the infection and to alleviate the itching. In cases that require further treatment after the institution of control, Mycostatin® (nystatin) seems to be the coming medication. This recently-developed antibiotic has a specific antimonilial action both when applied externally and when taken orally. Though occasionally Mycostatin ointments work equally well, probably the best form of local treatment is with Mycostatin powder, 25,000 to 100,000 units per gram, dusted onto the area two or more times a day until the active infection has been controlled. Two per cent gentian violet solution, formerly our best method, is now the second choice.

Once the active infection is under control—usually after a week of treatment—management of monilial lesions follows the general principles applicable to any condition with ano-genital itching. External irritation must be avoided, and soap and water cleansing is interdicted. Rather, cleansing may be done only with a half-saturated boric acid solution or plain water. The itching is best controlled through the external use of steroid ointments, and twice-daily applications of a small



Figure 1. Monilia infection of the vulva, showing moderate thickening of the tissues and white patches on the labia.

amount of one per cent hydrocortisone ointment is by far the most effective local treatment.

PYOGENIC INFECTIONS

All physicians know the susceptibility of the uncontrolled diabetic to pyogenic infections such as boils, carbuncles and the like, and in such a patient these infections are more severe and more difficult to manage than in normal persons. Identification and control of the diabetes is the first consideration, and following that, the treatment is not different from the usual. Lesions should be drained, and local inoculation of bacteria should be guarded against through the avoidance of adhesive tape or other occlusive dressings. The question of the oral administration of broad-spectrum antibiotics is complicated by the possibility of monilial overgrowth in the intestinal tract and subsequent monilial infections of the peri-anal skin. If broad-spectrum antibiotics are used, it may be desirable in addition to give Mycostatin by mouth in a dose of 500,000 units two to four times a day. Acute pyogenic infections respond well if the diabetes is controlled and if usual remedies are employed, but in chronic cases the bacteria are often resistant to many antibiotics. Then culture and antibiotic-sensitivity studies may need to be done, and treatment may nevertheless be difficult and unsatisfactory.

LIPOID INFILTRATION

In two skin conditions of diabetics, both rare, lipoid infiltration of the dermis is the predominant feature. Necrobiosis lipoidica diabeticorum is a condition in which there is a peculiar and microscopically characteristic fat infiltration of the dermis. Xanthoma diabeticorum is associated with severe lipemia and is one of the eruptive xanthomas of the hyperlipemic type. Both usually occur in severe, often uncontrolled, diabetes.

Necrobiosis lipoidica diabeticorum starts insidiously with red infiltrated plaques, almost always on the shins, which enlarge slowly, often attaining diameters of 3 to 10 cm., become sclerotic and assume a yellow color due to the imbibation of fats. Occasionally they ulcerate, and frequently they have the appearance of yellow scars. They progress slowly and steadily for years, and are asymptomatic. Figure 2 shows the shins of a young man with a severe, uncontrolled diabetes. In his case, necrobiosis lipoidica evolved over a period of eight years. Control of the diabetes usually stops the spread of the disease, but scar-like atrophy is often the end result. Microscopic examination of sections stained for fats shows areas of partial necrosis (necrobiosis) of the collagenous tissue, surrounded by a palisade of fat-infiltrated cells and fibers.

Xanthoma diabeticorum is one of the eruptive xanthomas associated with hyperlipemia, and occurs only in those diabetics with severe hyperlipemia. The lesions appear over the course of several weeks or months, in most cases, and are of uniform age and size. At first, they are present as small, red-yellow papules which enlarge to small, cutaneous nodules with the yellow color typical of the xanthomas. There is a marked tendency for the lesions to occur on the elbows, knees and buttocks, but the xanthomas are rather more widely disseminated than usual. The pathologic examination with fat stains shows the fat and cholesterol in the typical xanthoma foam cells and elsewhere. Good control of the diabetes and the associated hyperlipemia causes the lesions to regress and disappear. Figure 3 shows the knees of a young diabetic with marked hyperlipemia and the eruptive xanthomas of a few months' duration.

The condition of the skin of the feet may be the first warning of impending disaster in the diabetic who is often the victim of occlusive arterial disease of the extremities. The most important thing to look for is a change in color of the skin on exposure to cold, and a change in color on dependency and elevation. In all diabetics, palpation of the arteries should be done routinely. The appearance of corns and calluses may be the first sign of

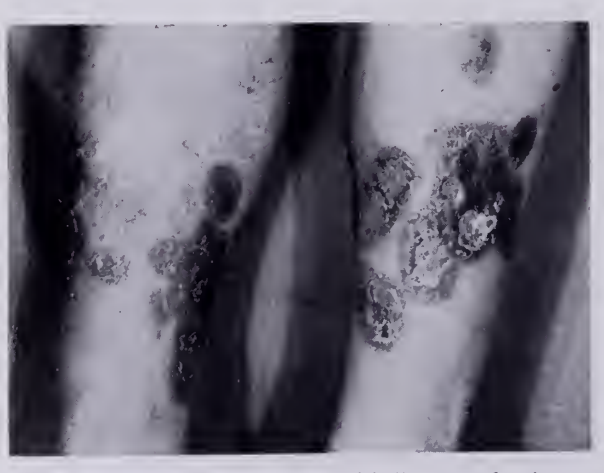


Figure 2. Necrobiosis lipoidica diabeticorum, showing a relatively recent scaling lesion on the right leg, and old, probably scarred lesions on the left leg.



Figure 3. The small xanthomas of uniform size located on the knees of a young person indicate that they "erupted" simultaneously.

impending breakdown of the skin and development of perforating types of ulcers. If ulceration occurs, then x-ray examination for bone involvement is imperative. Minor infections about the nails and elsewhere are often the source of later gangrene. Ringworm and other skin diseases must be treated with care, and strong remedies such as fungicides must be avoided. Properly fitted shoes and stockings, avoidance of minimal trauma and care of the toenails are worthwhile prophylactic procedures. If small ulcers or minimal dry gangrene occur, minimal debridement and care are often the means of avoiding more extensive surgical procedures.

SUMMARY

Diabetics may have the same skin diseases as other people, but there are several groups of diseases which are limited to, or are more serious in, the diabetic. Greater susceptibility to and more serious cases of both monilial and pyogenic infections are found in the diabetic.

Disturbances of fat metabolism occur, with accompanying skin lesions. Xanthoma diabeticorum is associated with hyperlipemia and eruption of xanthomatous nodules, whereas necrobiosis lipoidica diabeticorum is unassociated with systemic lipoid changes and presents a characteristic eruption on the shins, with microscopic findings typical of necrobiosis and fat imbibation.

Vascular and other lesions of the feet are common, and prophylactic foot care and regular examination of the feet may prevent more serious damage. In practically all of the conditions of the skin which afflict the diabetic, proper control of the diabetes is the first consideration, and subsequent treatment is essentially the same for diabetics as for non-diabetics.

Disseminated Mucormycosis in a Child With Diabetes Mellitus

A Case Report

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PHYSICIANS ARE becoming increasingly aware of the importance of fungal infections as the cause of human disease. One of the less well known of the pathogenic fungi is the class of molds known as Phycomycetes, one of the families of which is called Mucoraceae. Diseases caused by the Mucoraceae are rare and are therefore difficult to diagnose. Even when recognized, they constitute difficult therapeutic problems.

In this paper, the clinical features and necropsy findings of mucormycosis in a young child in diabetic acidosis are reported. The purpose is to draw attention to the classical features of the disease and thus to promote early recognition. Additionally, however, the rarity of the disseminated form is sufficient reason for making the findings generally available.

CASE REPORT

L. B. (57-205), a 34-month-old female, was admitted to the State University of Iowa Hospitals on January 3, 1957. She had been completely well until six days prior to admission, when she became somewhat irritable and thirsty, and complained of pain in her eyes. Later in the day, she vomited three times. Because of the persistence of these symptoms and the development of anorexia, she was seen on the second day of her illness by the family physician. He noted that her throat was inflamed and that she was moderately dehydrated, but could find no other abnormalities. Fluids, chlortetracycline and paregoric were prescribed. These were largely refused by the patient. By the following morning (the third day of illness), the vomiting had ceased. Her physician found that she had a "bad throat," but was afebrile. Intramuscular penicillin was administered. That afternoon, the child began to breathe deeply and to "moan." Because of this further deterioration, she was admitted to the local hospital. Examination then revealed her to be drowsy, cyanotic and severely dehydrated. Treatment consisted of parenteral fluids, intramuscular ACTH, penicillin and chloramphenicol. The next day (the fourth day of illness), the breathing was less labored and the temperature remained normal. Muscular weakness of

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the left side of the body was evident on the fifth day. "Ecchymotic" lesions involving the right eye were seen for the first time on the following morning (sixth day of disease). An apparent right lenticular opacity was also noted at that examination. She was admitted to the Pediatric Service of the University Hospitals at about 6 p.m. of the same day.

A careful inquiry into her previous health revealed that her only serious illness had been pneumonia at the age of one year. Her family history was essentially non-contributory. Specifically, it should be mentioned that there was no known diabetes mellitus.

Upon admission, the patient was deeply comatose and unresponsive even to pain. Her respirations were increased in rate (38 per minute) and in depth, and her alae nasae flared with each inspiration. Her skin was cool, and her pulse was 96 per minute and thready. Her systolic blood pressure was 44 mm. Hg., and the rectal temperature was recorded as 94.4°F. The medial half of the upper and lower right eyelids and the medial portion of the left periorbital region were greenish-black and obviously necrotic. The necrosis extended over the bridge of the nose and along the upper right lateral aspect of the nose as far as the ala. The right cornea was dull, gray and opaque. A significant but lesser degree of these changes was seen in the left cornea. The left fundus consequently was not well seen, but no abnormality was evident. The pupillary reflexes were absent bilaterally, and the eyes were fixed in anterior gaze. A thin, reddish-brown discharge oozed from both nares. There was a bluish discoloration of the right half of the hard palate, with necrosis of the superficial tissue. A moderate inflammation of the right tympanic membrane was seen, but the left appeared normal. Coarse, moist rhonchi were heard over the entire chest. The femoral pulses were scarcely palpable. The right thigh was mottled and even cooler than the left. No pulsations of the dorsalis pedis arteries were palpable. All extremities were flaccid, and the patellar reflex was slightly decreased on the right. The Babinski sign was absent. Other than the edge of the liver being felt 3 cm. below the costal margin, the remaining findings on physical examination were not unusual.

The following data were obtained by means of laboratory studies: hemoglobin 9.5 Gm./100 cc., white blood cells 21,600 per cu. mm. with a differential of 62 per cent segmented neutrophils, 1 per cent basophils, 33 per cent lymphocytes and 4 per cent monocytes, a urinalysis showing a pH of 5.0, 3+ albumin, 4+ reducing substances, trace acetone (repeated) and many granular casts, blood sugar 785 mg. per cent, serum sodium 120 mEq./L, serum potassium 8.0 mEq./L, serum chloride 108 mEq./L., serum CO_2 content 5.2 mEq./L, blood urea nitrogen 58 mg. per cent, creatinine 4.8 mg. per cent, and on lumbar puncture an initial pressure of 190 mm., protein 150 mg. per cent, glucose 400 mg. per cent, and 59 segmented and 4 non-segmented leukocytes.

The initial diagnostic impression was diabetes mellitus, a serious necrotizing lesion of the face, probable thrombosis of the right femoral artery and possible thrombosis of the common iliac artery. The depth of the coma seemed greater than would be expected from the minimal acetonuria. Thus, it was not thought that the patient was in diabetic coma, but rather that she had intracranial disease.

Treatment consisted of crystalline zinc insulin, appropriate intravenous fluids, levarternol bitartrate, hydrocortisone, penicillin and chloramphenicol. The patient showed little if any response, and died five hours after admission.

At necropsy, general inspection agreed with the findings recorded above in the physical examination. There was recent thrombotic occlusion of the aorta below the origin of the inferior mesenteric artery and into the common iliac arteries. The right internal carotid artery was similarly occluded. The upper and lower lobes of the right lung and the lower lobe of the left lung were bluish, firm and non-aerated; the remaining lobes were congested.

In the abdomen, there were 50 ml. of serosanguinous exudate. The large mesenteric vessels were patent, but the wall of the distal part of the superior mesenteric artery and the mesentery around it were hemorrhagic. There was patchy infarction of the small intestine. A fibrinous exudate was seen on the appendix and parts of the large intestine. The mesenteric lymph nodes were enlarged.

The meningeal vessels were congested. The parenchyma of the inferior portions of both frontal lobes and of the tip of the right temporal lobe was red and soft; these changes were more extensive in the right frontal lobe than in the left. The apposing surface of the dura mater was red and dull. Otherwise, the brain was essentially normal. The pituitary gland was red and soft. The right middle ear contained red-brown fluid.

Histologically, fibrinous thrombi occluded the submucosal vessels of the intestines, the vessels of the lungs, meninges, mesenteric lymph nodes and the thymus, as well as the larger arteries previously described. All the thrombi, the related arterial walls, viable or infarcted, and the perivascular tissues were invaded by fungi. Identical fungi were found in the parenchyma of the thymus and lymph nodes, in the Haversian system and intertrabecular spaces of the bone around the right middle ear, in the pituitary gland and in the lungs. In the lungs, there was an associated fibrinous, hemorrhagic, fluid exudate. In general, exudation of neutrophilic leukocytes and other manifestations of inflammation were minimal. The

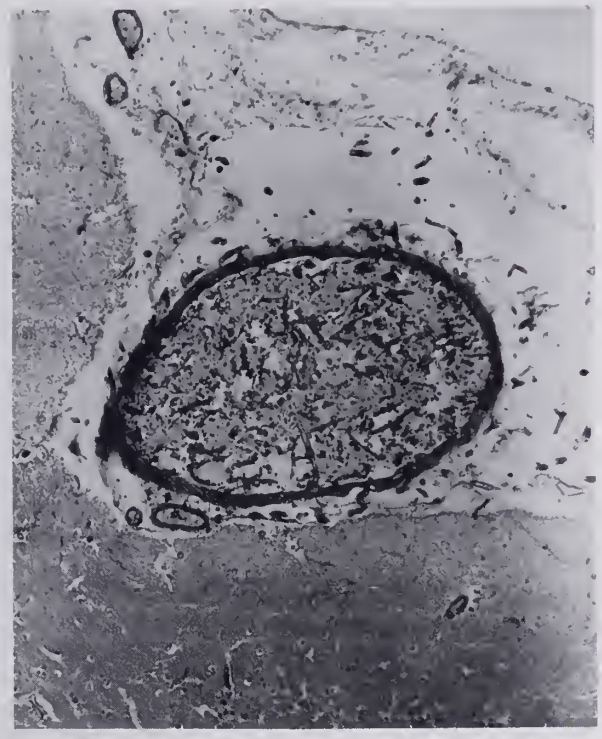


Figure 1. Photomicrograph of brain and leptomeninges. Note the thrombus in a cerebral vessel. Within the thrombus, within the vessel wall and around the vessel are numerous branching hyphae. Note also the lack of inflammatory response.

necrosis was due to infarctions, rather than to a direct toxic effect of the fungi.

The fungi were in the form of branching hyphae, 6-10 micra thick and up to 150 micra long. The hyphae had only rare septa and no spores. They stained readily with hematoxylin and eosin, and with Grocott's stain for fungi. They had a remarkable tendency to invade vessels, even the thick, muscular coats of large arteries and the aorta. Vigorous attempts to culture the fungus from the involved organs were unsuccessful.

The necropsy findings were convincing evidence that death had been due to the mucormycotic infection, rather than to diabetic acidosis.

DISCUSSION

The history of mucormycosis dates back to 1865, when Cohnheim reported two patients with pulmonary infection who were found to have a fungus of the family Mucoraceae on histologic examination.[1] The first experimental support of their pathogenicity was supplied by Lichtheim in 1884.[2] Not until 1943 did Gregory draw attention to the relationship between this disease and diabetic acidosis.[3] The reasons for this curious association are still not clear. Experimental studies with chronic alloxan-diabetes in rabbits and mice have demonstrated no increased susceptibility to infection with organisms of the family Mucoraceae.[4, 5] Yet in the acute, toxic stage of alloxan-diabetes there is a significantly increased susceptibility to these fungi.[6] Further studies have shown that if cortisone is administered to the animal with alloxan-diabetes, spreading of the fungus infection within the body is enhanced.[7] In this respect, it should be noted that in patients with diabetic acidosis, an increased excretion of adrenal steroids has been well established.[8] However, the disease is not unique to diabetes mellitus, for leukemia, chronic glomerulonephritis, tuberculosis, thermal burns, multiple myeloma, diarrhea of infancy and other diseases have also been known to precede this fungus infection.[9, 10, 11, 12, 13, 14, 15]

Several instances of central nervous system mucormycosis and a few instances of a pulmonary type have been reported.[1, 3, 9, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 29] Less commonly, localized gastrointestinal, retinal and dermal lesions have been noted.[24, 25, 26, 27] Disseminated forms of the disease have been reported only rarely.[9, 11, 12, 14, 28] In all instances, the course of the disseminated disease has been an acute, fulminating one, similar in essential details to the one reported in this paper.

It is interesting and paradoxical that despite the heavy infestation of the fungus seen on histologic examination, attempts to grow the organism were unsuccessful. This is not an unusual experience in these cases, for other authors have reported similar difficulties with material obtained at necropsy. The histologic characteristics of infections with the Mucoraceae are unique, and allow ready identification.

SUMMARY

The clinical features and necropsy findings of a case of disseminated mucormycosis in a 34-months-old child with diabetes mellitus have been described. The diagnosis of mucormycosis was established on the basis of the characteristic thrombotic lesions and on the histologic evidence that these are due to a fungus of the family Mucoraceae. Pertinent literature has been briefly reviewed, and allusion has been made to possibly significant host-parasite relationships.

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REFERENCES

1. Cohnheim, J.: Zwei Fälle von Mykosis der Lungen. Virchow's Arch. path. Anat. u. Physiol., **33**:157-159, 1865.
2. Lichtheim, L.: Ueber pathogene Mucorineen und die durch sie erzeugten Mykosen des Kaninchens. Ztsch. f. klin. Med., **7**:140-177, 1883.
3. Gregory, J. E., Golden, A., and Haymaker, W.: Mucormycosis of central nervous system; report of three cases. Bull. Johns Hopkins Hosp., **73**:405-419. (Dec.) 1943.
4. Elder, T. D., and Baker, R. D.: Pulmonary mucormycosis in rabbits with alloxan diabetes. AMA Arch. Path., **61**:159-168, (Feb.) 1956.
5. Schofield, R. A., and Baker, R. D.: Experimental mucormycosis (Rhizopus infection) in mice. AMA Arch. Path., **61**:407-415, (May) 1956.
6. Bauer, H., Flanagan, J. F., and Sheldon, W. H.: Experimental cerebral mucormycosis in rabbits with alloxan diabetes. Yale J. Biol. & Med., **28**:29-36, (Sept.) 1955.

7. Baker, R. D., Schofield, R. A., Elder, T. D., and Spoto, A. P., Jr.: Alloxan diabetes and cortisone as modifying factors in experimental mucormycosis (Rhizopus infection). Fed. Proc., **15**:506-507, (Mar.) 1956.
8. McArthur, J. W., Sprague, R. G., and Mason, H. L.: Urinary excretion of corticosteroids in diabetic acidosis. J. Clin. Endocrinol., **10**:307-312, (Mar.) 1950.
9. Paltauf, A.: Mycosis mucorina. Virchow's Arch. path. Anat. u. Physiol., **102**:543-564, 1885.
10. Kurrein, F.: Cerebral mucormycosis. J. Clin. Path., **7**:141-144, (May) 1954.
11. Martin, F. P., Lukeman, J. M., Ranson, R. F., and Geppert, L. J.: Mucormycosis of central nervous system associated with thrombosis of internal carotid artery. J. Pediat., **44**:437-442, (Apr.) 1954.
12. Zimmerman, L. E.: Fatal fungus infections complicating other diseases. Am. J. Clin. Path., **25**:46-65, (Jan.) 1955.
13. Gunson, H. H., and Bowden, D. H.: Cerebral mucormycosis: report of case. AMA Arch. Path., **60**:440-443, (Oct.) 1955.
14. Baker, R. D.: Pulmonary mucormycosis. Am. J. Path., **32**:287-313, (Mar.-Apr.) 1956.
15. Mayfield, G. R., and Condie, F.: Paradoxical mucorthrombosis in thrombocytopenic purpura. AMA Arch. Path., **63**:260-264, (Mar.) 1957.
16. Harris, J. S.: Mucormycosis; report of case. Pediatrics **16**:857-867, (Dec.) 1955.
17. Foushee, S., and Beck, W. C.: Mucormycosis of central nervous system; case report. North Carolina M. J., **17**:26-31, (Jan.) 1956.
18. Merriam, J. C., Jr., and Tedeschi, C. G.: Cerebral mucormycosis; fatal fungus infection complicating other diseases. Neurology, **7**:510-515, (July) 1957.
19. McCall, W., and Strobos, R. R. J.: Survival of patient with central nervous system mucormycosis. Neurology, **7**:290-292, (Apr.) 1957.
20. Bauer, H., Ajello, L., Adams, E., and Hernandez, D. U.: Cerebral mucormycosis: pathogenesis of disease; description of fungus, Rhizopus oryzae, isolated from fatal case. Am. J. Med., **18**:822-831, (May) 1955.
21. LeCompte, P. M., and Meissner, W. A.: Mucormycosis of central nervous system associated with hemochromatosis: report of case. Am. J. Path., **23**:673-677, (July) 1947.
22. Wolf, A., and Cowen, D.: Mucormycosis of central nervous system. Abst. Am. A. Neuropathologists. J. Neuropath. & Exper. Neurol., **8**:107, (Jan.) 1949.
23. Stratemeier, W. P.: Mucormycosis of central nervous system: report of case. Arch. Neurol. & Psychiat., **63**:179-180, (Jan.) 1950.
24. Moore, M., Anderson, W. A. D., and Everett, H. H.: Mucormycosis of large bowel. Am. J. Path., **25**:559-567, (May) 1949.
25. Baker, R. D., Bassert, D. E., and Ferrington, E.: Mucormycosis of digestive tract. AMA Arch. Path., **63**:176-182, (Feb.) 1957.
26. Wadsworth, J. A. C.: Ocular mucormycosis: report of case. Am. J. Ophth., **34**:405-409, (Mar.) 1951.
27. Wade, J. L., and Matthews, A. R. K.: Cutaneous mucor infection of face. J.A.M.A., **114**:410-411, (Feb. 3) 1940.
28. Baker, R. D., and Severance, A. O.: Mucormycosis, with report of acute mycotic pneumonia. Abst. Am. A. Path. & Bact. Am. J. Path., **24**:716-717, (May) 1948.
29. Lloyd, J. B., Sexton, L. I., and Hertig, A. T.: Pulmonary mucormycosis complicating pregnancy. Am. J. Obst. & Gynec., **58**:548-552, (Sept.) 1949.

The Neurologic Complications of Diabetes Mellitus

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THE OCCURRENCE of neurologic complications of diabetes mellitus has been recognized for a century (de Calvi[1]). Both the central and the peripheral nervous systems may be implicated. The mechanism underlying the pathologic changes in the nervous system is not well understood. The metabolic disorder, the associated vascular disease, or both, may be responsible. From the clinical standpoint, the neurologic manifestations may occur as early symptoms, and they are often painful, disabling and difficult to manage.

SPINAL FLUID ALTERATIONS

The striking—and often the only—abnormality of the spinal fluid in diabetic neuropathy is an elevation of the spinal fluid protein.[2] Bailey and Murray[2] analyzed the spinal fluid findings in 84 patients with diabetic neuropathy and found values of 15 to 50 mg. per 100 cc. in 13 per cent, and values above 50 mg. per 100 cc. in the remaining 87 per cent. There are many confirmatory reports, such as those of Jordan,[3] Ives[4] and Goodman *et al.*[5] In diabetic patients without neurologic complications, the cerebrospinal fluid protein value is usually normal (Madonick and Margolis[6]).

It is not surprising that occasionally, when diabetes mellitus is suspected, one can confirm the diagnosis by demonstrating a high glucose value in the cerebrospinal fluid.

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ARTERIOSCLEROSIS

It has long been recognized that arteriosclerosis is commonly found in diabetic patients. This complication has probably not been averted by the present-day treatment of diabetes. Vascular disease is present, in varying degrees of severity, in every case of diabetes mellitus of several years' duration (Dolger[7]). Precocious arteriosclerosis is the rule in diabetes (Dock[8]), and arterosclerosis is uniformly present in all middle-aged and elderly diabetics (Loeb[9]). Over the age of 50 years, the frequency of deaths from vascular disease of all types is 80 per cent greater among diabetics than among non-diabetics (Bell[10]).

Thus, vascular disease of the brain will be present in a considerable number of diabetics, particularly in those beyond 40 years of age. It may lead to Focal and diffuse cerebral disease (De Jong[11]). Diffuse changes may result in a so-called organic brain syndrome, with impairment of recent memory, irritability and emotional lability. Focal disturbances may be produced by transitory vascular insufficiency, by vascular occlusion or by hemorrhage. The neurologic manifestations of such insults include paresis or paralysis, aphasia,

hemaniopsia and alterations in the state of consciousness.

DIABETIC NEUROPATHY

Diabetic neuropathy is a common neurologic complication of diabetes. In an extensive review of diabetic patients, Spratt and Hardin[12] found polyneuritis in 14 per cent. Their findings are in substantial agreement with reports by Martin,[13] Davidson [14] and Goodman *et al.*[5]

The exact mechanism of production of peripheral neuropathy is not known (DeJong[11]). It is not the result of hyperglycemia alone, and the possibility that diabetic neuropathy is a vitamin deficiency is losing favor. Many observers, including Woltman and Wilder,[15] and Kauvar,[16] have been impressed by the intimate relationship between diabetic neuropathy and vascular disease, and have postulated that ischemia and anoxia of the nerves constitute the major factor.

The pathologic changes in the peripheral nerves include demyelination and arteriosclerotic changes in the nutrient vessels. Cellular infiltration and other signs of inflammation are absent.

Diabetic neuropathy may be divided clinically into the isolated and the multiple varieties. In the former, the femoral nerve is a site of predilection, although sciatic, median and ulnar nerves may occasionally be implicated. So-called femoral neuropathy has a sudden onset, and is characterized further by severe pain in the anterior portion of the thigh, weakness and wasting of the quadriceps group, absence of the patellar tendon reflex and sensory changes over the anterior portion of the thigh, extending into the medial portion of the leg. This condition is very similar to that occurring in non-diabetic arteriosclerotic patients. Multiple diabetic neuropathy is characterized by pain, hyperesthesia, paresthesia, loss of deep reflexes, muscular weakness, atrophy and alterations in sensation.

Hirson *et al.*[17] described three forms of diabetic neuropathy. In the first variety, transient neurologic symptoms—especially pain and paresthesiae—occur in the presence of severe hyperglycemia. Recovery takes place when the blood sugar has returned to normal limits. The second type, referred to as "active neuropathy," is characterized by a sudden onset and a conspicuous tendency to remission and relapse. The third type is described as "asymptomatic neuropathy." In it, there is little or no progression, and it is characterized by diminution or loss of the knee and ankle reflexes, and impairment of vibratory sensation in the lower extremities. Elderly mild diabetics most commonly show these features. Arteriosclerosis is not always present, however.

RADICULAR AND MYELYTIC SYMTOMS

The combination of areflexia and severe disturbance of proprioceptive sensation, as well as disturbance of the pupillary responses, has led to the use of the term *diabetic pseudotabes*. Shooting pains, nocturnal intensification and cutaneous hyperesthesia may constitute troublesome symptoms of this condition. Charcot joints have been reported occasionally (Bolen[18]), and impotence and neurogenic bladder are sometimes encountered (Balfour and Ankenman[19]). These symptoms, however, may actually represent the manifestations of radicular involvement or peripheral neuropathy, rather than myelopathy.

Changes in the spinal cord similar to those of posterolateral sclerosis were noted by Naunyn[20] and by Sandmeyer,[21] but Woltman and Heck[22] indicated that degeneration of the spinal cord in diabetes mellitus was relatively unimportant in comparison with the incidence of peripheral nerve involvement.

A syndrome of muscular weakness and wasting has been designated diabetic myelopathy by Garland and Taverner,[23] and diabetic amyotrophy by Garland.[24] This is a painful condition which usually affects the proximal portions of the lower extremities. Fasciculations may be present. The deep reflexes are absent, and there are no changes in sensation. The protein value of the spinal fluid is increased. There is considerable doubt concerning this condition as an entity, and possibly it should be classified with the radicular lesions of diabetes mellitus.

Acute vascular lesions of the spinal cord, particularly thrombosis of the spinal arteries, will result in the symptoms of transverse myelitis, with the sudden appearance of numbness and weakness of the lower extremities, loss of all reflexes below the level of the lesion, and the rapid development of disturbed bowel and bladder functions. Such cases may be distinguished with difficulty from rapid compression of the spinal cord by neoplasm or abscess.

CRANIAL NERVE PALSIES

Palsies of the cranial nerves are found less frequently than involvement of the peripheral nerves in diabetes mellitus (DeJong[11]). Reflex iridoplegia (complete or partial non-syphilitic Argyll Robertson pupil) is occasionally encountered. Recurrent oculomotor palsy has been reported (McAlpine[25]). Dreyfus *et al.*[26] studied an oculomotor nerve from a patient with diabetic ophthalmoplegia and reported changes consistent with an ischemic neuropathy. Palsies of the other ocular rotators have been reported, as well. Other cranial nerves are sometimes implicated, with resulting retrobulbar and optic neuritis, nerve deafness, recurrent laryngeal palsy and the like.

AUTONOMIC PHENOMENA

Alteration in sweat secretion, loss of vasomotor and pilomotor control, dependent edema, abnormalities of texture and consistency of the skin, and atrophy of the skin and subcutaneous tissues may occur as manifestations of disturbed autonomic control in diabetes mellitus. Abnormalities

of bowel and bladder control have been mentioned. Impotence may be associated with any of the major neurologic complications. Nocturnal diarrhea, orthostatic hypotension (Rundles[27]) and tachycardia may also be present in diabetic patients.

HYPOGLYCEMIC REACTIONS

The untoward consequences of hypoglycemia are often risked in order to establish relatively accurate control of the disease. The longer-acting insulins such as N.P.H. can result in prolonged periods of hypoglycemia which begin insidiously and which may defy early diagnosis. Furthermore, in the case of the longer-acting insulins, the hypoglycemic episode often occurs when the patient is asleep.

Hypoglycemia may result in convulsions, alterations in personality and, occasionally, focal manifestations such as aphasia and hemiplegia. On occasion, a patient may be precipitated into a convulsion by a rapid fall in blood sugar from a high level to one which might be considered a normal value. In this instance, the *rate and amount of fall* apparently have some bearing upon the production of the convulsive attack.

EPILEPSY

The incidence of epilepsy among uncomplicated adult diabetics is no higher than in selected normal persons in corresponding age groups (Bailey and Murray[2]). However, diabetes in childhood or young adulthood may be associated with convulsive attacks which may tax the ingenuity of the clinician in his efforts to determine whether the spells are caused by a precipitous drop in blood sugar (see above) from a previously high level, whether the spells are truly hypoglycemic episodes, whether the seizures are the result of brain damage from hypoglycemic episodes, diabetic coma or other factors, or whether the seizures are "idiopathic." Unfortunately, the electroencephalogram is not too useful in providing data for the solution of such problems. Considerable information, however, can be obtained through the determination of blood sugar values at the time of the convulsion, from the patient's response to intravenous glucose and from a therapeutic trial of phenobarbital and/or Dilantin.

DIABETIC COMA

Although the mortality rate from this emergency has fallen sharply as methods of care have improved, particularly since hypopotassemia has been recognized as a cause of death during treatment, diabetic acidosis and coma still constitute a serious complication of diabetes mellitus. Repeated episodes of coma may result in brain damage, with impairment of memory, irritability, reduction of efficiency and asthenia.

OTHER COMPLICATIONS

Some of the neurologic complications occur indirectly as a result of the increased susceptibility of the diabetic patient to infections. Occasional combinations of diabetes mellitus, pulmonary tuberculosis and tuberculous meningitis have occurred. Furthermore, the diabetic patient is particularly susceptible to infections of the skin and urinary tract, so that he may develop acute infections of the bones of the skull and vertebrae, of the epidural space or the subarachnoid space with pyogenic organisms such as the Micrococcus, or with coliform and other organisms. Furthermore, the diabetic patient may be unusually susceptible to yeast infections. Recently mucormycosis of the central nervous system is being reported with increasing frequency (McCall and Strobos[28]).

TREATMENT

The general principles of treatment of the diabetic state apply to all the complications of diabetes. Reliance is placed on the proper administration of insulin and on an adequate dietary program.

The cerebrovascular complications are managed as "strokes," generally, with careful attention to nutrition, maintenance of an adequate airway, care of the bladder and bowels, the use of antibiotics to combat infection, and early ambulation and rehabilitation, if possible.

For the pain of peripheral neuritis, local heat may be used carefully. Attention to the care of skin and feet is important. Splints may be applied for the correction of foot drop. Provision may have to be made for catheter drainage if there is a neurogenic bladder. Every effort should be made to avoid uinary-tract infection by the administration of Gantrisin or antibiotics, and by removal of the catheter as soon as possible. The use of vitamins B_1 and B_{12}—the latter in large doses—has been advocated by some authors and discounted by others.

REFERENCES

1. de Calvi, M.: Recherches sur les accidents diabetiques. Paris, P. Asselin, 1864.
2. Bailey, C. C., and Murray, J.: "The Nervous System and Diabetes." In: Joslin, E. P., Root, H. F., White, P., Marble, A., and Bailey, C. C.: The Treatment of Diabetes Mellitus, Eighth Edition. Philadelphia, Lea & Febiger, 1946.
3. Jordan, W. R.: Neuritic manifestations in diabetes mellitus. Arch. Int. Med., **57**:307-366, (Feb.) 1936.
4. Ives, E.: Protein content in cerebrospinal fluid of diabetic patients. Bull. Los Angeles Neurol. Soc., **22**:95-111, (Sept.) 1957.
5. Goodman, J. I., Baumoel, S., Frankel, L., Marcus, L. J., and Wassermann, S.: The Diabetic Neuropathies. Springfield, Ill., Charles C Thomas, 1953.
6. Madonick, M. J., and Margolis, J.: Protein content of spinal fluid in diabetes mellitus: report of 100 cases. A.M.A. Arch. Neurol. & Psychiat., **68**:641-644, (Nov.) 1952.
7. Dolger, H.: Clinical evaluation of vascular damage in diabetes mellitus. J.A.M.A., **134**:1289-1291, (Aug. 16) 1947.
8. Dock, W.: "Arteriosclerosis." In: Harrison, T. R., Adams, R. D., Resnick, W. H., Beeson, P. B., Thorn, G. W., and Wintrobe, W. M.: Principles of Internal Medicine, Second Edition. New York, The Blakiston Company, Inc., 1954.
9. Loeb, R. F.: "Diabetes Mellitus." In: Cecil, R. L., and Loeb, R. F.: A Textbook of Medicine, Ninth Edition. Philadelphia, W. B. Saunders Company, 1955.
10. Bell, E. T.: Postmortem study of vascular disease in diabetics. A.M.A. Arch. Path., **53**:444-455, (May) 1952.
11. DeJong, R. N.: Nervous system complications of diabetes mellitus, with special reference to cerebrovascular changes. J. Nerv. & Ment. Dis., **111**:181-206, (Mar.) 1950.
12. Spratt, I. L., and Hardin, R. C.: History of treated

diabetes mellitus; a contrast of young and old. J. Iowa M. Soc., **47**:571-576, (Sept.) 1957.
13. Martin, M. M.: Diabetic neuropathy: clinical study of 150 cases. Brain, **76**:594-624, (Dec.) 1953.
14. Davidson, C. H.: Diabetic neuropathy. Edinburgh M. J., **60**:294-297, (June) 1953.
15. Woltman, H. W., and Wilder, R. M.: Diabetes mellitus: pathologic changes in spinal cord and peripheral nerves. Arch. Int. Med., **44**:576-603, (Oct.) 1929.
16. Kauvar, A. J.: Relations of arteriosclerosis to diabetic neuritis of lower extremities. J. Clin. Endocrinol., **1**:955-957, (Dec.) 1941.
17. Hirson, C., Feinmann, E. L., and Wade, H. J.: Diabetic neuropathy. Brit. M. J., **1**:1408-1413, (June 27) 1953.
18. Bolen, J. G.: Diabetic Charcot joints. Radiology, **67**:95-98, (July) 1956.
19. Balfour, J., and Ankenman, G. J.: Atonic neurogenic bladder as manifestation of diabetic neuropathy. J. Urol., **76**:746-752, (Dec.) 1956.
20. Naunyn, B.: "Der Diabetes Melitus." In: Nothnagel, H.: Specielle Pathologie und Therapie, vol. VII. Vienna, Hölder, 1900.
21. Sandmeyer, W.: Beitrag zur pathologischen Anatomie des Diabetes mellitus. Deutsches Arch. f. klin. Med., Leipsig, **50**:381-392, 1892.
22. Woltman, H. W., and Heck, F. J.: Funicular degeneration of spinal cord without pernicious anemia; neurologic aspects of sprue, non-tropical sprue and idiopathic steatorrhea. Arch. Int. Med., **60**:272-300, (Aug.) 1937.
23. Garland, H., and Taverner, D.: Diabetic myelopathy. Brit. M. J., **1**:1405-1408, (June 27) 1953.
24. Garland, H.: "Diabetic Amyotrophy." In: Williams, D.: Modern Trends in Neurology. London, Butterworth & Co., 1957.
25. McAlpine, S. G.: Recurrent oculomotor palsy in diabetes mellitus. Scot. M. J., **1**:44-45, (Jan.) 1956.
26. Dreyfus, P. M., Hakim, S., and Adams, R. D.: Diabetic ophthalmoplegia: report of case with postmortem study and comments on vascular supply of human oculomotor nerve. A.M.A. Arch. Neurol. & Psychiat., **77**:337-349, (Apr.) 1957.
27. Rundles, R. W.: Diabetic neuropathy: general review with report of 125 cases. Medicine, **24**:111-160, (May) 1945.
28. McCall, W., and Strobos, R. R. J.: Survival of patient with central nervous system mucormycosis. Neurology, **7**:290-292, (Apr.) 1957.

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Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 67-YEAR-OLD MAN entered the State University of Iowa Hospitals complaining of edema of the legs throughout the preceding six months. Three weeks prior to admission, multiple small blisters had appeared on his legs. Later, these had coalesced to form several large blisters, and they in turn had become inflamed. Physical examination at the time of admission demonstrated peripheral cellulitis, swelling and tenderness along the leg veins, and an enlarged liver.

Roentgenograms of the upper and lower gastrointestinal tract were normal. A Meyer's test on the stool was positive for occult blood.

The cellulitis and thrombophlebitis healed after three weeks of hospitalization, and in consequence the patient was discharged. The liver was then of normal size, but the cause for the occult blood had not been determined.

Subsequently, the patient was well until he reached age 71, when he was readmitted following a day of vomiting bright red blood and passing dark stools. The record showed that his past consumption of alcohol had been excessive. There was no weight loss, dysphagia or change in bowel habits. There was pain in the abdomen, and the abdomen along with the legs had become swollen three weeks prior to admission. Malaise and anorexia developed on the day of admission.

The man was pale. He was well oriented and without tremor. Opacification of the left cornea and bilateral arcus senilis were observed. "Poor rotting dentition" was noted. No congestion was apparent in the neck veins. There was no lymphadenopathy. The blood pressure was 130/60 mm. Hg., the ausculatory findings of the chest were normal, and the heart rhythm was regular except for occasional extra systoles and the rate of 80 per minute. No murmurs or enlargement of the heart could be found. The thoracic cavity appeared small in relation to the largeness of the abdomen. There were dilated veins over the anterior chest and abdomen. The abdomen was distended and difficult to examine, but it was thought that a smooth, tender, hard liver edge was present one finger-breadth below the costal margin. The spleen could not be palpated by the first examiner, but a second man found it enlarged and very hard. The scrotum was edematous. Rectal examination was negative. The lower extremities were edematous, with deep pitting on pressure. The knee jerk, Achilles, triceps and biceps reflexes were listed as present and equal. The Babinski reflexes were absent.

The thymol turbidity was 1.6 units on the first admission, and 1.0 units on the second admission. Zinc turbidity was 0.9 units on the first admission. The cephalin flocculation was negative on the first admission, and on the second admission it was 1+ after 24 hours and 2+ after 48 hours.

A Sengstaken-Blakemore tube was passed and the balloons inflated. Eight units of blood were given during the patient's five days of hospitalization. On the third day, the Sengstaken tube was removed, and bleeding seemed to have stopped. "Tremendous dependent edema and ascites" were present. On the fourth day, tarry stools were observed, and the pulse rate increased. There was no response to diuretics. The breath sounds were clear, but there was much secretion in the trachea that the patient could not cough out. The patient's vital signs and alertness gradually deteriorated, and death came five days following admission.

Laboratory findings. An electrocardiogram showed low voltage and complete right bundle branch block. A bromsulphalein clearance was 441 average ml. blood/minute and 377 minimum

ml. blood/minute. The bone marrow was hypercellular. The hemoglobin was 11 Gm./100 ml. on the first admission and 9.6 Gm./100 ml. on the second. The white blood cell count and differential were normal. The urinalysis was negative. The prothrombin time was 22.5 seconds. The blood urea nitrogen was 44 mg./100 ml., and the creatinine and electrolytes were normal. The total serum protein was 4.3 Gm./100 ml., with an albumin of 3.1 and a globulin of 1.2.

CLINICAL DISCUSSION

Dr. George Thornton, Internal Medicine: The patient, a 67-year-old man—or so he was at the time of his first admission to this hospital—complained of edema of the legs which had been present for six months. It is apparent that this edema had not distressed him greatly until three weeks before admission, when he developed what turned out to be cellulitis of the legs, associated with edema and thrombophlebitis. The protocol describes swelling and tenderness along the leg veins which would suggest that the thrombophlebitis was superficial, and I can find no evidence of a deep-vein thrombosis such as inequality of edema, tenderness of the calves or a positive Homan's sign. The cellulitis, I think too, was probably an incidental finding due to a secondary infection in devitalized tissues where there was venous stasis and possibly a general disease which diminished resistance to infection. The edema, therefore, had most probably been caused by a constitutional disease, rather than by a venous thrombosis.

The causes of edema, of course, are usually cardiac, renal or hepatic. In this instance, there is no history of dyspnea, and the protocol informs us that when the patient was admitted four years later, in a much worse clinical condition, he had no distended neck veins or cardiomegaly. Thus, cardiac edema is most unlikely. The laboratory findings show the urinary specific gravity to have been normal. No albuminuria could be found, and the blood urea nitrogen was normal. So I do not think that he had renal edema.

It was observed on his first admission that he had enlargement of the liver, and as a result I was inclined to suspect that hepatic disease might have been responsible for his edema. A curious thing about his liver enlargement, however, is that when he was discharged from the hospital three weeks later, his liver had returned to normal size. This would suggest, perhaps, that he had cardiac failure which had responded to treatment, but I have already decided that he did not have cardiac failure, and thus I must think of some other cause for the shrinking of his liver.

Hepatitis would be a possible explanation, and in the absence of an adequate history, it would be hard to exclude hepatitis completely. I should expect him to have had some fever and anorexia at the onset, if he had had hepatitis, and referring again to the laboratory findings, I might mention that it would be unusual to find absolutely normal flocculation in a patient who had had hepatitis for six months. The very severely diseased necrotic liver may shrink rapidly, but such a shrinkage would be associated with rapid deterioration of the patient's clinical condition, rather than with a slow improvement such as this man experienced during the three weeks he spent in the hospital following his first admission.

So we are left with the possibility of cirrhosis, and although the cirrhotic liver may often be thought of as rather small, or at least unchanging in size, nevertheless we know that in most cirrhotics there are episodes of fatty metamorphosis and infiltration of the liver, with consequent hepatic enlargement, and between these episodes fibrous tissue is deposited in the liver, and regeneration of liver cells takes place. Variation in the size of the liver is not inconsistent with cirrhosis, and I think that in this man we are dealing with a cirrhosis of the liver seen during a period of fatty infiltration. Bed rest and good hospital diet reversed this process, but left him with a cirrhotic, though small, liver.

The other interesting observation made during the patient's first admission was that a Meyer's test was positive for occult blood in the stool. We aren't told whether it was a strongly positive or a weekly positive finding. Weakly positive tests often occur in a normal person without any blood present, and even a 2+ or 3+ result may occur in a normal person following the ingestion of meat. Thus I do not know whether the positive Meyer's test was a significant finding. If it was, then the x-rays which were taken of the upper and lower gastrointestinal tract don't help very much to exclude the sources of bleeding, since they might easily fail to show esophageal varices or hemorrhoids.

During his first day in the hospital he lost six pounds, which seems to me to mean that either he didn't entirely get rid of his edema or it was not very extensive to begin with. His discharge weight was only 121 pounds, and thus, unless he was a very short man, he probably was in a rather poor nutritional state. His electrocardiogram was normal. Liver BSP clearance was done presumably on the peripheral-vein blood, and the first study was interpreted as showing impaired liver function. I think it is likely that this man was one of the first patients on whom we carried out that test, and at that time a clearance of 400 was thought of as abnormal. Later, Dr. Horsley and Dr. Eckstein established that a reading of 400 in a man could be perfectly normal. I don't believe that this patient's BSP clearance was abnormal in either of the tests that were done.

He had a slight anemia which might make a positive Meyer's more significant than otherwise,

and the bone marrow was compatible with a mild blood-loss anemia. His white count was surprisingly low in view of the cellulitis which was no doubt responsible for the elevation in the sedimentation rate.

His urine was normal, as I have mentioned. I should like very much to have seen a urine urobilinogen on this chart. It is a simply obtained bit of information, and I believe that it is highly pertinent in cases where hepatocellular disease is a possibility. If I am right in thinking that this patient had cirrhosis, and if he had an episode of fatty infiltration, it is extremely likely that there would have been an excess of urobilinogen in his urine.

His prolonged prothrombin time, I have interpreted as being a reflection of hepatocellular disease, and it may possibly have been responsible for some mild bleeding into his alimentary tract, without there being any definite ulcer or other lesion. The blood urea nitrogen was normal, and there was no abnormality of serum electrolytes. The serum albumin was slightly lower, and that again would be compatible with cirrhosis of some months' duration. The globulin was just on the upper limits of normal, and I don't believe it was significantly raised. His serum bilirubin and flocculation tests were perfectly normal. His serum amylase was slightly low.

The patient was readmitted four years later, at the age of 71, and more evidence became available then. On the day before that second admission, he had a hematemesis of bright red blood and passed dark stools. He must have had considerable bleeding from somewhere in the alimentary tract above the ligament of Treitz. It was also recorded that at one time he had consumed extreme amounts of alcohol. Both of these findings might seem to support my tentative diagnosis of cirrhosis of the liver on first admission. I think that one must be somewhat cautious about accepting esophageal varices as the cause of hematemesis in a patient of this type, since peptic ulcer is particularly common in people with cirrhosis of the liver, and one can be misled and miss a peptic ulcer that occurs concomitantly with cirrhosis of the liver. It seems reasonable, however, that this patient developed portal hypertension and esophageal varices in the interval between his first and second admissions. There was no weight loss, dysphagia or change in bowel habits. Since esophageal varices are not expected to cause dysphagia, this information has been of much help to me. However, three weeks before his second admission he again developed swelling of the legs and abdomen, and I think this development might also support the opinion that he had cirrhosis of the liver with portal hypertension, and was then developing ascites. Yet, pain in the abdomen is an unusual symptom and does not usually occur in cirrhosis of the liver or in portal hypertension.

On physical examination on this occasion, he had apparently no evidence of liver coma or precoma; he was well oriented; and he had no tremor. There was some opacification of the left cornea, a finding which in a man of his age would be more likely to have resulted from an old traumatic lesion than from syphilitic keratitis. His poor teeth might have been an indication that he had been careless, that perhaps he was still consuming alcohol and that he was not eating very well. Once again his heart size was found to be normal, and he had no distention of neck veins. In fact, there was no evidence of heart disease or heart failure to account for his edema.

The thoracic cavity appeared small in relation to the largeness of his abdomen—again probably an indication of poor nutrition. The dilated veins which were found over the anterior chest and abdomen are commonly associated with portal hypertension, or thrombosis of the portal vein or of the inferior vena cava. The direction of flow of blood in these veins may sometimes be of help, though if the flow were upwards, as it likely would be, it could be an indication of either portal obstruction or inferior vena cava obstruction. A downward flow, when it can be definitely established, generally means that the inferior vena cava is patent and that the obstruction is portal. The abdomen was distended, but the protocol does not say whether the patient had ascites or merely abdominal distention. In cirrhosis and portal hypertension, gross abdominal distention due to gas is a very common precursor of ascites, and has been described as "the wind before the rain." The liver on this occasion was enlarged only one finger-breadth, it was hard and smooth, and apparently it was tender. The spleen was palpated by one examiner, but not by the other. I prefer to believe the one who felt the spleen, for I think that a palpable spleen would fit rather well with the findings that suggested portal hypertension.

Except for the severe edema of the lower extremities and the abdominal wall of the scrotum, the rest of the findings have not been of much help diagnostically. The laboratory findings on this second admission showed no weight loss, presumably because of the accumulation of edema. It was noted that the electrocardiogram showed a low voltage and complete right bundle branch block, changes which could probably occur in a 71-year-old patient following a severe hemorrhage as a result of anoxia and arteriosclerotic heart disease. He showed slight anemia on that occasion too, but his hemoglobin was probably measured shortly after his admission, when there had not yet been time for hemodilution. A second, undated reading showed that it did go down to 9.6 Gm. from 11 Gm. The sedimentation rate was still elevated. We have no record of whether he had sugar in his urine, but at least he had no albumin and no acetone, and the microscopic examination was negative.

The prothrombin time was increased slightly

more than previously, again probably due to the liver cell disease. His blood urea nitrogen was raised, perhaps as a consequence of the absorption of nitrogen from the blood in his alimentary tract. The serum creatinine and electrolytes were within normal range. The potassium was slightly low, but still normal. His serum protein showed no fall in the serum albumin, but his globulin had fallen in a dramatic fashion that I cannot explain, unless there was a laboratory error. Once again his flocculation tests showed no significant abnormality. It is noteworthy that no test was made of the alkaline phosphatase. This test may be the only abnormal biochemical test in primary or secondary malignant diseases of the liver, and may provide a most important clue.

On this second admission to the hospital, the patient was treated by the Sengstaken-Blakemore tube, and it evidently stopped the upper gastrointestinal bleeding. This would seem to confirm the suggestion that the site of the bleeding was esophageal varices. The day following the removal of the tube, however, he again passed melena stools, and he was noted to have tremendous edema and ascites. These had presumably increased since his admission, and he did not respond to diuretics. The day following the recurrence of bleeding, he died.

My original diagnosis was cirrhosis of the liver, and if I am to stick to it, I must trace the course of events somewhat in this way. On his first admission, he had already developed portal cirrhosis, probably after several minor episodes of fatty infiltration of the liver, probably connected with his previous alcoholism.

After his first admission, he gradually developed portal hypertension and esophageal varices, and was admitted the second time with severe hemorrhage which eventually led to death from exsanguination.

There are, however, some things that my explanation fails to explain. It does not account for the patient's abdominal pain and tender liver on the second admission, and the degree of ascites and edema is greater than one would expect in cirrhosis of the liver. The function tests—particularly the serum albumin—were normal or nearly normal. It is necessary, therefore, to find some explanation for these inconsistencies, and there are several acute complications which might have occurred at the time of his second admission. One thing that might have happened is a rapid deterioration of liver function, such as frequently occurs when a patient with cirrhosis of the liver bleeds from esophageal varices. This, together with increased absorption of nitrogen from blood in the intestine and increased blood ammonia, may lead to hepatic coma and death. There is no evidence in the protocol that this patient had hepatic coma, and even that condition would not account very well for the rapid accumulation of ascites and edema.

Another way in which a person with cirrhosis may go downhill very rapidly is by the development of a hepatoma. Hepatoma frequently occurs secondarily in a cirrhotic liver, and patients so afflicted may rapidly develop ascites and die within a short period of time. Any patients with hepatoma whom I have seen have had enormously enlarged livers, however, and on that basis I am going to reject the possibility of hepatoma in this particular case. If the patient's alkaline phosphatase had been measured and if it had been found to be increased, I would have some hesitation about dismissing hepatoma as a possible cause for his sudden deterioration.

Alternatively, and I think more probably, he may have had some form of thrombotic episode which could account for the rapid accumulation of edema and ascites. He may have had a thrombus in his portal vein that increased his portal pressure and accounted for the sudden and severe bleeding. Portal vein obstruction, however, does not necessarily cause ascites, and it is difficult to see how it could cause such an enormous amount of ascites and such tremendous edema of the legs, unless there were also some very severe parenchymatous liver damage.

If he had a portal vein thrombosis, I think probably he had a mesenteric thrombosis as well, causing tremendous congestion of the mesenteric vascular bed, increasing his ascites and leading to hemorrhagic infarction of his bowel immediately prior to death. This would not account for the tender liver which was found on his second admission, and I do not believe that this is the most likely course of events.

He could possibly have had an ascending pylephlebitis from an infected appendix or gallbladder. Although his white count was elevated to 11,000 on his second admission, I should have expected far more in the way of chills, fever and leukocytosis if this were the case.

I then considered the possibility of hepatic vein thrombosis, and it seemed the best way to account for the findings on his second admission. It could cause tenderness of the liver, which in hepatic vein thrombosis usually enlarges greatly and becomes extremely painful and tender. If the patient already had cirrhosis and a fibrotic liver, I think it possible that the liver might become tender without becoming greatly enlarged. Cases of that sort have been recorded. This would also account for his abdominal pain on the second admission, and certainly would account for the massive ascites, for the increase in portal pressure and bleeding from esophageal varices and for the massive edema.

Cirrhosis is known to be one of the predisposing causes of hepatic vein thrombosis, or Chiari's syndrome as it is called, and it may have occurred as a complication of cirrhosis in this patient. On the other hand, he may have had Chiari's syndrome from the beginning. If so, he must have had partial thrombosis of the inferior vena cava above the hepatic veins on his first admission to

the hospital, and this might have caused enlargement of his liver. One would have expected pain and tenderness, but nothing of the sort is recorded in the protocol.

Subsequent recanalization of the thrombus or the collateral vein formation, which we know occurred, might have allowed his liver to become reduced in size, and then he might finally have had a complete thrombosis of the hepatic vein and the inferior vena cava on his second admission. If this were so, I think I should have expected hepatomegaly of much greater degree and much longer duration on the first admission. Unless he developed congestive cirrhosis during the interval between the two admissions, I should have expected a larger liver when the complete thrombosis occurred.

The last possibility that I considered is that he had a malignant invasion of his portal vein, either from a pancreatic tumor or from a hypernephroma. Both of these conditions have been known at times to cause invasion of the splenic or portal vein by local spread. Hypernephroma is particularly known to affect the inferior vena cava from time to time, and the tumor may spread so as to involve the hepatic veins as well. This sequence of events does not provide an explanation for the leg edema which the patient had had for six months before his first admission, but it could explain the findings on the second admission.

In summary, I think that this patient had portal cirrhosis of the liver which was present on his first admission and which became complicated by portal hypertension during the four years between his two admissions. At the time of his second admission, he had thrombosis of the hepatic veins, causing a sudden increase of portal pressure and ascites. Later, the thrombus spread to his inferior vena cava and increased his leg edema. The ultimate cause of death has hemorrhage from esophageal varices.

Dr. William B. Bean, Internal Medicine: Do you want to comment on the development of thrombosis in an individual who has a prolonged prothrombin time?

Dr. Thornton: The easiest explanation is that his prothrombin time might vary from time to time, and that when he developed the thrombosis, his prothrombin time was not perhaps so prolonged as when it was measured. On the other hand, we do know that patients whom we treat with Dicumarol for coronary thrombosis occasionally develop further thromboses, even though we think we have the prothrombin time adequately prolonged. I can't explain such a comparable situation any better than I can explain the thromboses in the patient presently under discussion.

Dr. John R. Carter, Pathology: Dr. Thornton's was an excellent clinical presentation of a difficult case, and when I have finished relating the autopsy findings, you will recognize, I think, that his diagnoses were the ones best correlated with the clinical findings.

The primary lesion and the sequelae which ultimately accounted for the majority of the clinical manifestations was a carcinoma of the esophagus. Clinically, this lesion had not caused dysphagia or other local manifestations. The carcinoma was located in the mid-portion of the esophagus, at the junction of the upper and lower halves. The lesion was 3 cm. in length, and was definitely longitudinal and not annular. The tumor was so poorly differentiated that it virtually defied any precise histologic classification. We have, however, seen lesions of this type before, and they are of epidermoid origin.

There were widespread metastases. Abdominal carcinomatosis was a conspicuous feature. The spleen was the site of numerous metastatic deposits. The liver, particularly, was virtually replaced by tumor. Almost all abdominal and mediastinal lymph nodes were involved by neoplasm. The pelvis was literally "frozen." The bladder was encased in tumor, and it was with great difficulty that any of the lower abdominal organs could be removed. Adhesions between the various loops of bowel by both neoplasm and fibrous tissue were excessive, so that in large part the abdominal viscera were removed *en masse*. There was ascites (5,100 ml.).

In addition to the peritoneal implants, there was a mild but definite chronic vascular peritonitis. There was one metastatic deposit in the pericardium. There were no lung metastases, but the lungs did show focal areas of bronchopneumonia, with mild pulmonary congestion and edema. As an incidental finding, we found a small adenocarcinoma of the prostate gland. This tumor was readily distinguishable, histologically, from the esophageal carcinoma. No recognizable metastases from this tumor were observed.

From our examination of a slide, it was apparent that the tumor was characterized in part by massive necrosis. Blood vessel and lymph node invasion was conspicuous. Ulceration of the esophageal neoplasms had occurred. There were no intercellular bridges or keratinizing plugs, and in some areas the tumor had the features of an adenocystic type of basal cell neoplasm.

Another slide revealed a typical example of esophageal varices. These were numerous and were readily demonstrated grossly and microscopically. The varices were enlarged and dilated, the result of prolonged distention. Varices do not always collapse at the time of autopsy and generally are readily demonstrable histologically. There were clumps of neoplastic cells in many of the vascular channels.

In a section of liver, there was massive replacement by neoplasm. Because of the enormous and extensive metastatic deposits, it would have been almost impossible to determine whether or not this patient had had cirrhosis four years prior to his death. The small amount of liver that remained showed only atrophic changes. It is worth emphasizing that in spite of the fact that no more

than a small amount of liver may remain, in cases such as this, liver-function tests frequently are not abnormal. The liver has a tremendous reserve capacity. The architectural pattern of the liver was grossly distorted. The blood vascular patterns were most irregular, and the segments of the hepatic veins, arteries and portal system were plugged with neoplasm. This vascular abnormality, together with compression by the tumor on patent vascular channels, could readily account for some degree of portal hypertension.

On the surface of a loop of the ileum, the serosa was approximately 10 times thicker than normal, and was characterized by edema, dilated capillaries and chronic inflammatory cells. In part, this was a reflection—particularly the vascular component—of the probable portal hypertension, and in part it was a reflection of the presence of ascitic fluid. Although carcinomatosis was a conspicuous feature, there were large areas showing this mild vascular peritonitis without neoplastic involvement.

Of the adenocarcinoma of the prostate gland, suffice it to say that each of the two tumors—of the prostate gland and of the esophagus—could be distinguished readily, one from the other.

It is important always to keep in mind that frequently patients with far-advanced malignancy will show a leukemoid bone-marrow picture. In our bone-marrow slide, one could see the focal areas of hyperplastic immature myelocytic elements. In between those islands, there were relatively normal foci of bone marrow. In this case, however, there was some increase in normoblastic elements.

To correlate the autopsy and the clinical findings, the following comments may be in order. Relative to the esophageal varices, I think one might readily cite two possible mechanisms: (1) the increased portal tension resulting from the distortion of the vascular pattern in the liver and compression by neoplasm; and/or (2) the plugging of the radicles of the esophageal and coronal venous system by neoplasms. You will recall that there were plugs of tumor in the esophageal veins.

With regard to the ascites, both the portal hypertension and the abdominal carcinomatosis could adequately explain that finding. It should always be kept in mind that the peritoneum is a dialyzing membrane, and that ascitic fluid is not static. It is constantly being replaced and added to. You will recall the increased vascular markings throughout the peritoneal surface. That in itself, together with the low-grade cellulitis, could have contributed to the formation of fluid.

The findings presented still do not explain what happened to the patient four years before his death. I don't know that we can adequately explain the clinical manifestations that were present at that time. I can say that on a statistical basis the average length of life following a diagnosis of esophageal carcinoma is approximately one year. Further, it usually takes approximately one year for an esophageal neoplasm to become completely annular. For that reason, of course, it is quite possible that there is a latent period in which no clinical manifestations relative to the tumor may be noted. With the degree of anaplasticity of our patient's tumor, it would appear to have been unlikely that the tumor was four years old. As indicated previously, the patient might well have had cirrhosis, but because of the large deposits of tumor, it was impossible to tell at autopsy.

A point contraindicative of long-standing portal hypertension, possibly on the basis of cirrhosis, was the fact that the spleen was not appreciably enlarged or fibrotic. Histologically, also, the spleen did not show the distortion of sinusoidal pattern and fibrosis that one ordinarily associates with long-standing portal hypertension. It is possible, too, that this man might have had a precancerous lesion of the esophagus for many months or even years prior to its actual invasion. This, we know, occurs rather commonly in such tissues as the cervix and the skin. Such a precancerous or preinvasive lesion, with erosion, might readily have accounted for the episodes of bleeding.

There are certain other basic points worth commenting upon, regarding carcinoma of the esophagus. The peak age usually is late in the sixth decade. The ratio of males to females is five to one. The tumor is rather common in Europeans, but has often been reported in Easterners. The neoplasms can occur anywhere in the esophagus, and there have been considerable variations among the series that have been reported. Klein's data show the middle third of the esophagus as the commonest site.

Regarding causative factors, a host of substances have been incriminated: alcohol, tobacco, hot food, foreign bodies, carcinogens in food. Each has its proponents. There are many intangibles related to some of these causative or possibly causative agents. There are those who feel that those who drink their whiskey straight are most likely to develop carcinoma of the esophagus. In making that remark, I am not being facetious; in fact, it can be documented. As regards foods, one must remember that they have to be broken down into the various types, and one must distinguish whether or how they are cooked—frozen, boiled, fried, etc. The point that is worth emphasizing is that controls in this type of conjecture are virtually non-existent. Actually, we do not know the cause of carcinoma of the esophagus, or even what the precipitating factors are. Certainly alcohol and tobacco have been considered by many to be associated with carcinoma of the esophagus.

Of the histologic types of carcinoma of the esophagus, the epidermoid carcinoma is by all odds the commonest, comprising approximately 80 per cent of the total. Another 10 or 12 per cent are adenocarcinomas that usually arise from small islands of generally misplaced gastric tissue, or

at least glandular tissue, in the lower part of the esophagus. The rest of the tumors are rather rare, and are made up of rhabdomyosarcomas, neurogenic sarcomas, etc. To begin with, the esophageal carcinomas generally are longitudinal in topography, but in approximately a year's time they become annular, and their clinical manifestations are then usually quite apparent.

One of the points that I should like to emphasize particularly, and one which accounts in part for the very poor prognosis, is that submucosal lymphatic spread is particularly common. Frequently, even after apparently complete excision, we find deposits of neoplasm in the submucosal lymphatics at the line of resection. Ulceration of esophageal carcinoma is very common. As far as local extension is concerned, it is there that we find the cause of the problems of differential diagnosis.

The case today is a classic example of the mimicry of which carcinoma of the esophagus is capable. This patient had a disease process which closely simulated cirrhosis of the liver. Sometimes an esophageal carcinoma will perforate the aorta and produce the clinical manifestations of a ruptured aneurysm. Not uncommonly, the tumor involves the spinal cord and produces paraplegias. Commonly, these tumors invade the trachea, bronchi and lungs, producing a pneumonitis. In this connection, this point is worth emphasizing, since ordinarily, bronchogenic carcinomas do not invade and destroy the esophagus. As far as metastases are concerned, the abdominal and mediastinal lymph nodes are generally the first tissues to be involved. The liver, lungs and brain are the three principal organs to which esophageal neoplasms frequently metastasize.

Dr. E. L. DeGowin, Internal Medicine: In view of the finding, would you have expected the rectal examination to detect the pelvic spread of this neoplasm?

Dr. Carter: I should have thought so. That question arose when we first discussed the case. Hindsight, of course, is usually more accurate than foresight, but from the appearance of the tumor, its location and, particularly, the fact that the bladder and prostatic tissue, as well as the bulk of the pelvic viscera, were literally encased in tumor, one might have expected it to be felt. It is only fair to say, however, that the neoplasm in this part of the body was of a very diffuse nature. It was not nodular. All things considered, it would seem that the neoplasm or at least some abnormality should have been noted on palpation.

Dr. Thornton: Dr. Mason has just called my attention to the fact that the chart says the patient was "touchy" on rectal examination. Thus, it may be that whoever did the rectal examination was afraid to be thorough because of the patient's rectal tenderness. If an adequate examination had been done, the pelvic lesion might possibly have been felt.

I wanted to comment on another point. If we had suspected cirrhosis of the liver on the patient's first admission, we might have done the right thing for the wrong reason. If we had thought he had cirrhosis—and he definitely had a positive occult blood test and negative x-rays—we probably would have esophagoscoped him to look for esophageal varices, for that is very often the only way in which one can find them. Thus, it is possible that we might have seen the precancerous lesion that Dr. Carter mentioned, and it is just possible that we might have been able to do something about it. But in making such a discovery, we would have been led to the diagnosis by accident.

SUMMARY OF NECROPSY FINDINGS

The primary lesion, the sequelae of which ultimately accounted for the majority of the clinical manifestations, was a very poorly differentiated carcinoma, epidermoid in origin, 3.0 cm. in diameter, located at the junction of the upper and lower halves of the esophagus. Widespread metastases, particularly conspicuous below the diaphragm, included those to the diaphragm, lymph nodes (mediastinal and abdominal), mesentery, peritoneum, spleen, liver and pericardium. The pelvis was "frozen," the bladder was encased in tumor, and the pelvic viscera could barely be delineated because of massive tumor deposits.

The abdomen was distended and displayed engorgement of abdominal veins. Esophageal varices were prominent. Pitting edema of the lower extremities, presacral region and scrotum was conspicuous. There was ascites (5,100 ml.) and hydrothorax (300 ml. right; 100 ml. left). Scattered pleural and dense matted fibro-neoplastic abdominal adhesions were present. Mild pulmonary congestion and edema, with small foci of bronchopneumonia and scattered recent arteriolar thrombi, were noted. A poorly differentiated adenocarcinoma of the prostate gland was also present. There were no apparent metastases, and the morphologic features were such as to allow definitive separation from the esophageal carcinoma.

The esophageal tumor was characterized by anaplasticity, lymphatic and blood-vessel invasion, extensive necrosis and a moderate desmoplastic response. Ulceration of the esophageal mucosa was produced by the tumor.

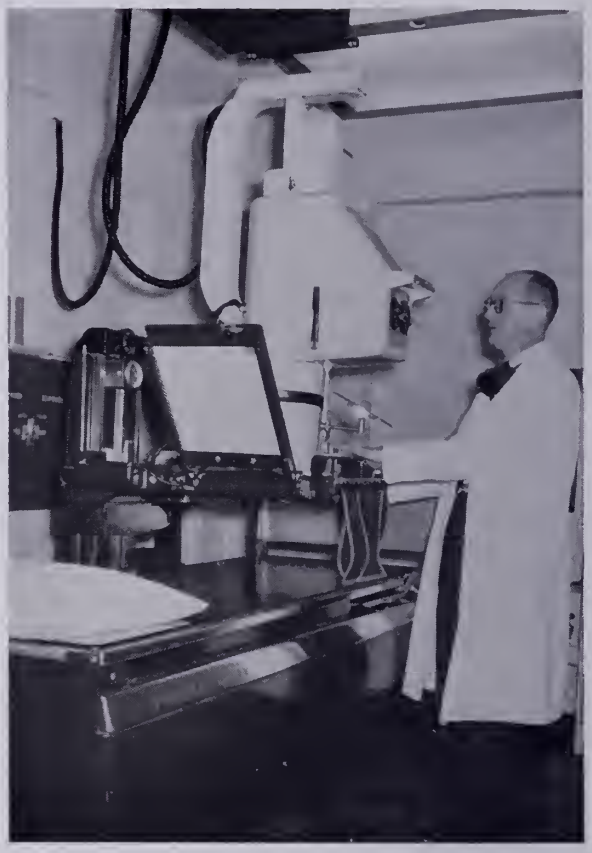
An added interesting and not infrequent finding in patients with advanced neoplastic disease was the leukemoid reaction in the bone marrow.

NECROPSY DIAGNOSES

Poorly differentiated carcinoma of esophagus with widespread metastases and abdominal carcinomatosis
Anasarca
Esophageal varices
Bronchopneumonia
Pulmonary congestion
Adenocarcinoma of prostate gland.



A technologist inserts a negative into the new x-ray processing machine in the S.U.I. Department of Radiology.



Dr. Eugene F. Van Epps, professor and head of radiology, adjusts the new image amplifier recently installed in his department. The image amplifier is suspended from rails on the ceiling so that it may be moved over a wide area in the room.

HIGH SPEED X-RAY PROCESSING AT S.U.I.

The S.U.I. Department of Radiology now has new equipment which processes x-ray negatives in six minutes. The entire procedure, from the time the exposure is made until the physician receives a dry film for examination, requires only about 13 minutes.

The high-speed processing unit, the first of its kind in the state, is one of several pieces of equipment which have been added to the Department's facilities during the past year.

Dr. Eugene F. Van Epps, professor and head of the Department, says that the volume of x-rays has increased steadily until it is not uncommon for 200 patients to be examined in a single day. "Space restrictions," he says, "have necessitated our going to more efficient equipment, rather than just more equipment."

With the new processer, the negatives are taken in a light-proof case immediately after exposure, to a special cabinet-like window between the Department's main corridor and the developing darkroom. The darkroom operator removes the case, on the darkroom side, takes the film out and inserts it into the new processing unit which extends through a wall into a filing room. After the operator has inserted the negative, it moves through the processing part of the machine which is in the darkroom and then out to the drying part of the appartus which is located in the filing room. The finished negative drops into a bin at the end of the machine.

When the negative is finished, it is filed in the same room or is available for immediate inspection by physicians in an adjoining viewing room.

The new six-minute process compares with 10 minutes for a wet print and about an hour for a dry print using the old equipment.

An image amplifier for use in fluoroscopy is another item of new equipment in radiology. It is coupled with a new x-ray unit, with both pieces of equipment mounted on ceiling rails which permit them to be moved over a wide area of the room.

The image amplifier also includes a movie component which enables the doctors to make movies of internal functions either with or without contrast materials. These films are used in teaching exercises for both students and staff.

A new head unit for x-rays of the skull, sinuses and mastoids, and new equipment for x-ray studies in animal research also have been added to the Department's facilities.

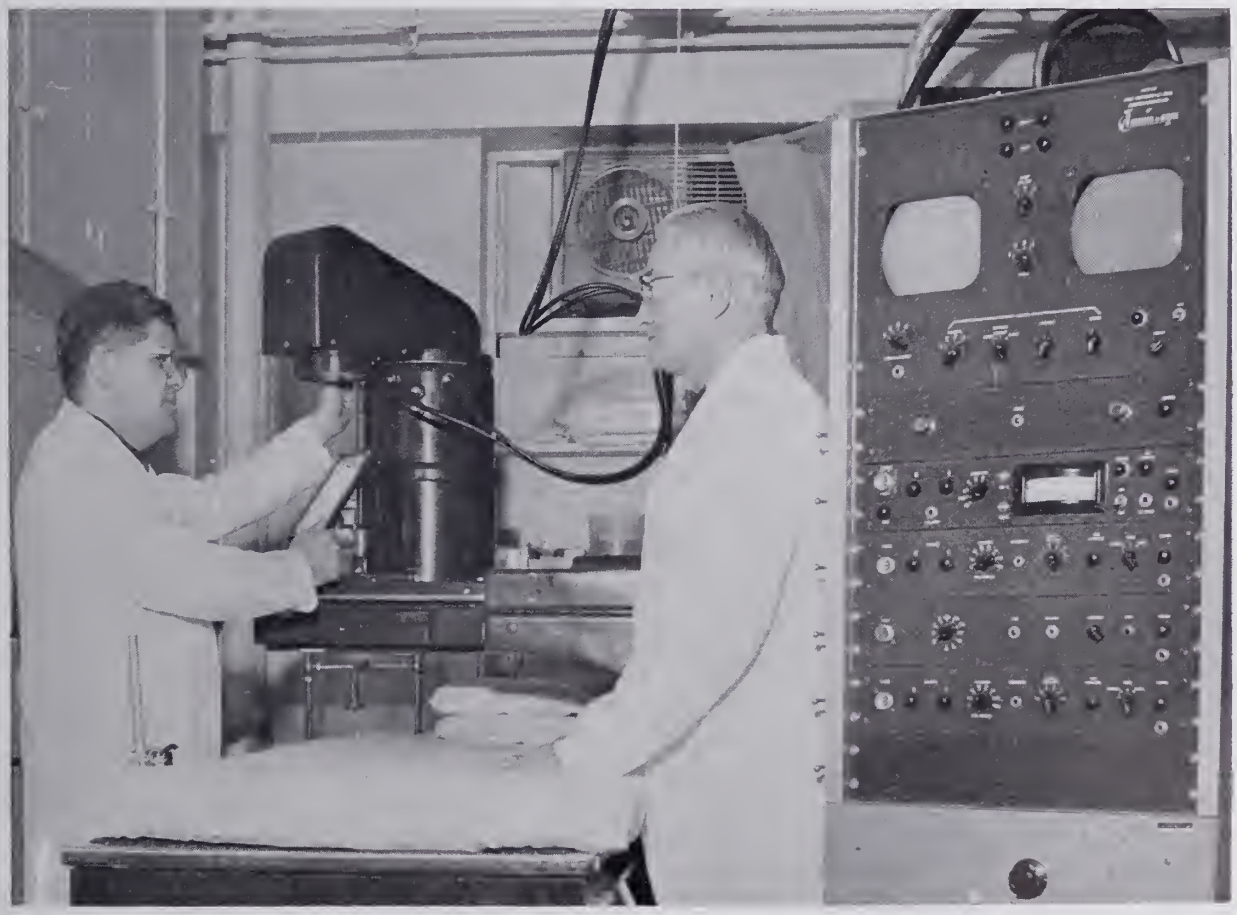
EXPANDED ANIMAL RESEARCH FACILITIES AT S.U.I.

Facilities for animal research at the State University of Iowa will be expanded this month when new animal quarters are opened on the grounds of the Oakdale Tuberculosis Sanatorium a few miles outside Iowa City. Opening of the new structure will free space formerly used for the housing of dogs in the Medical Laboratories Building. The reclaimed area will be used as research space and for the housing of smaller animals such as guinea pigs and rats.

Dr. Norman B. Nelson, dean of the College of Medicine, says that the building will fulfill a long-standing need at the University Medical Center. Animal studies are indispensable to the scientist in his efforts to understand and control diseases, the dean pointed out, and the new quarters will improve facilities for such studies by researchers. The building will enable more staff members in both the basic sciences and clinical medicine to perform animal research.

Dr. C. B. Thayer, the animal-care veterinarian who will direct operations of the new unit, says that the brick structure will provide a quarantine space, a pen area for dogs out of quarantine, a monkey room, facilities for maintaining small farm animals and a laboratory for the study of animal-colony diseases. There also will be more space than previously for the exercise of animals which are involved in long-term studies.

The structure was financed by grants from the National Institutes of Health and the National Foundation for Medical Education, and from University funds. The financing also provided for remodeling the area formerly used for housing animals in the Medical Laboratories Building.



Recent installation of an image amplifier in the cardiac catheterization room at the S.U.I. Hospitals enables physicians to perform catheterizations with less radiation exposure for both operator and patient. The amplifier also permits catheterizations in light rather than in darkness. Dr. John W. Eckstein, left, assistant professor of internal medicine, adjusts the machine, while Dr. Lewis E. January, professor of internal medicine, looks on. Funds for the purchase of the new equipment were provided by the Iowa Heart Association.

Coming Meetings

In State

Apr. 9-11	**Annual Meeting, Iowa Public Health Association and Iowa Trudeau Society.** Hotel Savery, Des Moines
Apr. 14-15	**Problems of the Chronically Ill.** S.U.I. Memorial Union, Iowa City
April 20-23	**Annual Meeting Iowa State Medical Society.** Veterans' Memorial Auditorium, Des Moines

Out of State

Apr. 1-3	**Surgery in Acute Trauma.** Fitzsimons Army Hospital, Denver
Apr. 1-5	**Practical Electrocardiography.** New York Polyclinic Hospital, New York City
Apr. 1-12	**Bahamas Medical Conference.** Dolphin Hotel, Nassau, Bahamas
Apr. 1-30	**Clinical Gastroenterology.** New York Polyclinic Hospital, New York City
Apr. 1-30	**General Medicine.** New York Polyclinic Hospital, New York City
Apr. 1-30	**Physical Medicine and Rehabilitation.** New York Polyclinic Hospital, New York City
Apr. 1-30	**Refraction.** New York Polyclinic Hospital, New York City
Apr. 1-May 23	**Histopathology for Gynecologists.** N.Y.U., N.Y.C.
Apr. 2-3	**Annual Meeting, California Tuberculosis & Health Assn., California Trudeau Society and California Conference of TB Workers.** Villa Hotel, San Mateo
Apr. 2-4	**American Association of Anatomists.** Buffalo
Apr. 2-5	**Cardiovascular Seminar.** U. of Mississippi Medical Center, Jackson
Apr. 4-5	**Society of Clinical Surgery.** St. Louis
Apr. 4-12	**International Congress of Neo-Hippocratic Medicine.** Athens and the Isle of Cos, Greece
Apr. 7-8	**Pediatrics.** U. of Nebraska College of Medicine, Omaha
Apr. 7-9	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-9	**Ophthalmology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 7-9	**Radiology for GPs.** U. of Minnesota, Minneapolis
Apr. 7-9	**Surgery in Acute Trauma.** Brooke Army Medical Center, Fort Sam Houston
Apr. 7-9	**Surgery in Acute Trauma.** Madigan Army Hospital, Tacoma, Washington
Apr. 7-11	**Diagnostic Radiology.** U. of Michigan, Ann Arbor
Apr. 7-11	**Diseases of the Blood and Blood-Forming Organs.** U. of Michigan, Ann Arbor
Apr. 7-11	**Gynecological Endocrinology.** N.Y.U., N.Y.C.
Apr. 7-11	**Gastroenterology (Columbia University).** Mount Sinai Hospital, New York City
Apr. 7-11	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Apr. 7-12	**Clinical Allergy.** VA Hospital, Pittsburgh
Apr. 7-18	**Clinical Use of Radioisotopes.** Indiana University, Indianapolis
Apr. 7-18	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-18	**Endaural Surgery (Columbia University).** Mount Sinai Hospital, New York City
Apr. 7-19	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 7-May 29	**Internal Medicine.** N.Y.U., N.Y.C.
Apr. 8-10	**Postgraduate Conference.** Creighton Memorial-St. Joseph's Hospital, Omaha
Apr. 8-10	**Traumatic Surgery.** U. of Wisconsin, Madison
Apr. 9-11	**Fractures and Dislocations.** U. of Tennessee, Memphis
Apr. 9-11	**Otolaryngology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 9-11	**Sixth Annual Spring Postgraduate Assembly.** U. of Nebraska College of Medicine, Omaha
Apr. 9-12	**Annual Meeting, California Tuberculosis and Health Association, California Trudeau Society and the California Conference of Tuberculosis Workers.** Sheraton-Palace Hotel, San Francisco
Apr. 9-14	**Congress of the International Association of Applied Psychology.** Rome, Italy
Apr. 10-11	**Problems in Pediatric Practice.** State University of New York Upstate Medical Center, Syracuse
Apr. 10-12	**Arthritis and Physical Medicine for GPs.** U. of Minnesota, Minneapolis
Apr. 10-12	**Association of Surgeons of Great Britain and Ireland.** Belfast, North Ireland
Apr. 10-12	**Hematology.** Tufts University, Boston
Apr. 10-12	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
Apr. 10-12	**Auscultation in Cardiac Diagnosis.** N.Y.U., N.Y.C.
Apr. 11-12	**Valley Children's Hospital Spring Clinics.** Roosevelt High School Auditorium, Fresno, California
Apr. 11-12	**North Pacific Society of Neurology and Psychiatry.** Empress Hotel, Victoria, British Columbia
Apr. 12	**Trauma for GPs.** U. of Minnesota, Minneapolis
Apr. 12-13	**Southwestern Society of Nuclear Medicine.** Baker Hotel, Dallas
Apr. 12-13	**Third Annual Spring Meeting, Anesthesia Section, Los Angeles Medical Assn.** LACMA Headquarters, Los Angeles
Apr. 12-19	**Reconstructive Surgery of Nasal Septum and External Nasal Pyramid (U. of Cincinnati and Am. Rhinol. Soc.). U. of Cincinnati and Cincinnati General Hospital,** Cincinnati
Apr. 12-20	**Pan American Congress of the History of Medicine.** Rio de Janeiro, Brazil
Apr. 13-14	**American Society for Artifical Internal Organs.** Benjamin Franklin Hotel. Philadelphia
Apr. 13-16	**International Association for Skiing Traumatology and Winter Sports Medicine.** Davos, Switzerland
Apr. 13-16	**Annual Meeting, Missouri State Medical Association.** Sheraton-Jefferson Hotel, St. Louis
Apr. 13-18	**Am. Society for Pharmacology and Experimental Therapeutics.** Philadelphia
Apr. 13-19	**Federation of Am. Societies for Experimental Biology.** Trade & Convention Center, Philadelphia
Apr. 13-20	**Sixth Annual Interim Scientific Meeting of Phi Lambda Kappa Fraternity.** Deauville Hotel, Miami Beach
Apr. 14-15	**Dermatology.** U. of Oregon, Portland
Apr. 14-16	**Anesthesiology.** U. of Kansas Medical Center, Kansas City, Kansas
Apr. 14-16	**Clinical Reviews.** Mayo Clinic and Mayo Foundation, Rochester, Minnesota
Apr. 14-16	**Gastroenterology for GPs.** U. of Minnesota, Minneapolis
Apr. 14-17	**Sixth Congress of the Pan American Medical Women's Alliance.** McAllister Hotel, Miami
Apr. 14-18	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 14-18	**Diseases of the Heart.** U. of Michigan, Ann Arbor
Apr. 14-18	**Regional Anesthesiology.** N.Y.U., N.Y.C.
Apr. 14-18	**Symposium on Tuberculosis and Other Pulmonary Diseases in Childhood.** N.Y.U., N.Y.C.
Apr. 14-18	**American Association of Immunologists.** Philadelphia
Apr. 14-18	**American Physiological Society.** Philadelphia
Apr. 14-18	**American Society for Experimental Pathology.** Philadelphia
Apr. 14-18	**Cardiovascular Disease (U. of Pennsylvania).** Auditorium, American College of Physicians, Philadelphia
Apr. 14-19	**Twenty-second Annual Graduate Convention in Otology, Rhinology and Laryngology.** U. of Cincinnati, Cincinnati
Apr. 14-19	**Thirty-first Annual Spring Congress in Ophthalmology and Otolaryngology, Otology, Rhinology, Bronchoscopy, Esophagoscopy and Facio-maxillary Surgery (Gill Memorial Eye, Ear and Throat Hospital).** Hotel Patrick Henry, Roanoke, Virginia
Apr. 15-17	**Annual Meeting, Ohio State Medical Association.** Netherland-Hilton Hotel, Cincinnati
Apr. 16	**Proctology.** U. of California, Los Angeles
Apr. 16-17	**Diabetes Mellitus.** Indiana University, Indianapolis
Apr. 16-17	**Medical and Surgical Advances in the Management of Peripheral Vascular Disorders (Cleveland Clinic Foundation).** Frank E. Bunts Educational Institute, Cleveland
Apr. 16-18	**American Surgical Association.** Waldorf-Astoria Hotel, New York City

Apr. 16-18	**Annual Meeting, Medical & Chirurgical Faculty of the State of Maryland.** Alcazar Hotel. Baltimore
Apr. 16-19	**Second Annual Postgraduate Course in Fractures and Other Trauma (Chicago Committee on Trauma of the American College of Surgeons).** John B. Murphy Memorial Auditorium, Chicago
Apr. 16-19	**International Congress of Legal and Social Medicine.** Madrid, Spain
Apr. 17-19	**Otolaryngology.** U. of Michigan, Ann Arbor
Apr. 17-19	**Annual Meeting, Medical Association of the State of Alabama.** Whitley Hotel, Montgomery
Apr. 17-19	**American Association of Railway Surgeons.** Drake Hotel, Chicago
Apr. 18-19	**Society of Neurological Surgeons.** Washington-Duke Hotel, Durham, North Carolina
Apr. 18-20	**Dermatology for the General Practitioner.** U. of Southern California, Los Angeles
Apr. 18-20	**American Society for the Study of Sterility.** Beverly-Hilton Hotel, Los Angeles
Apr. 19-23	**Annual Meeting, Texas Medical Association.** Shamrock-Hilton Hotel, Houston
Apr. 19-25	**Annual Meeting, Industrial Health Conference,** Atlantic City
Apr. 20-25	**Fourteenth Congress and Graduate Course in Allergy (The American College of Allergists).** The Shelburne, Atlantic City
Apr. 21-22	**Group Management in Treating Cleft Lip and Palate Patients.** Plastic & Reconstructive Surgery Center, St. Francis Hospital, San Francisco
Apr. 21-23	**Annual Spring Session, American Academy of Pediatrics.** Hotel Statler, New York City
Apr. 21-23	**Harvey Cushing Society.** Mayflower Hotel, Washington, D. C.
Apr. 21-23	**American College of Obstetrics and Gynecology.** Los Angeles
Apr. 21-23	**Ophthalmology.** U. of Michigan, Ann Arbor
Apr. 21-25	**EKG Clinics, Course "C."** Beth Israel Hospital, Boston
Apr. 21-25	**Gynecology.** State University of New York, Upstate Medical Center, Syracuse
Apr. 21-25	**American Industrial Hygiene Association.** Convention Hall, Atlantic City
Apr. 21-26	**Electrocardiography II.** U. of Michigan, Ann Arbor
Apr. 21-26	**American Academy of Neurology.** Bellevue-Stratford, Philadelphia
Apr. 21-28	**Spring Session, American Academy of Pediatrics.** Hotel Statler, New York City
Apr. 21-May 2	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 23-24	**Minor Surgery and Office Gynecology.** Rochester General Hospital, Northside Division, Rochester, New York
Apr. 23-25	**Twenty-seventh Annual National Venereal Disease Postgraduate Conference (U. of Texas Postgraduate School of Medicine, Baylor U. College of Medicine, Texas State Department of Health, Texas Medical Association and the U. S. Public Health Service).** U. of Texas, M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston
Apr. 23-25	**American Association of Genito-Urinary Surgeons.** Edgewater Gulf Hotel, Edgewater Park, Mississippi
Apr. 23-26	**Fifth Biennial Cardiovascular Seminar (Miami Heart Association).** Miami Hotel, Miami
Apr. 23-May 28	**Dermatology in General Practice.** U.C.L.A., Los Angeles
Apr. 24	**Obstetrics (U. of Nebraska College of Medicine).** Lincoln General Hospital, Lincoln
Apr. 24-25	**Eastern States Health Education Conference.** New York Academy of Medicine, NYC
Apr. 24-26	**Fifth International Congress of Internal Medicine (International Society of Internal Medicine).** Sheraton Hotel, Philadelphia
Apr. 24-26	**American Association for Cleft Palate Rehabilitation.** St. Francis Hotel, San Francisco
Apr. 24-26	**American Association of Pathologists & Bacteriologists.** Hotel Statler, Cleveland
Apr. 24-May 10	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 25-26	**The Mind: A Law-Medicine Problem.** Western Reserve University, Cleveland
Apr. 26	**Occupational Therapists and Related Groups Symposium.** U. of California, Los Angeles
Apr. 26	**Advances in Behavorial Sciences of Significance in Rehabilitation.** U.C.L.A., Los Angeles
Apr. 26	**Scientific Meeting, California Chapter, Am. College of Chest Physicians.** Ambassador Hotel, Los Angeles
Apr. 26-27	**Annual Meeting, American Society of Internal Medicine.** Chalfonte-Haddon Hall, Atlantic City
Apr. 27-30	**Annual Meeting, California Medical Association.** Ambassador Hotel, Los Angeles
Apr. 27-30	**Annual Session, Medical Association of Georgia.** Macon
Apr. 27-May 1	**Society of American Bacteriologists.** Morrison Hotel, Chicago
Apr. 28-29	**Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Apr. 28-May 1	**American Urological Association.** Roosevelt Hotel, New Orleans
Apr. 28-May 1	**Annual Session, Nebraska State Medical Association.** Hotel Cornhusker, Lincoln.
Apr. 28-May 2	**Acute Neurological Problems of General Practice.** N.Y.U., N.Y.C.
Apr. 28-May 2	**Allergy.** U. of Michigan, Ann Arbor
Apr. 28-May 2	**Thirty-ninth Annual Session, American College of Physicians.** Atlantic City
Apr. 28-May 2	**Culdoscopy.** N.Y.U., N.Y.C.
Apr. 28-May 2	**Health Congress of the Royal Society of Health.** Eastbourne, England
Apr. 28-May 2	**Pediatrics.** U. of Colorado School of Medicine, Denver
Apr. 28-May 2	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 30-May 1	**Connecticut State Medical Association.** Stamford
Apr. 30-May 3	**Neurology.** Tufts University, Boston
Apr. 30-May 3	**Arizona Medical Association.** Marcos Hotel, Chandler
May 1-3	**Annual Meeting, Hawaii Medical Association.** Honolulu
May 2	**Massachusetts Society of Anesthesiologists.** New England Medical Center, Boston
May 2-3	**Counseling of Parents of Handicapped Children (Woods Schools, Langhorne, Penna.).** Mayo Memorial Auditorium, U. of Minnesota, Minneapolis
May 3	**Annual Meeting, Group Psychotherapy Assn. of Southern California.** Chapman Park Hotel, Los Angeles
May 3-4	**International Union for Health Education of the Public.** Brussels, Belgium
May 3-4	**Third Annual Convention, Western Gerontological Society. Hotel Statler,** Los Angeles
May 5-9	**Electrocardiography for GP's and Specialists.** University of Minnesota Center for Continuation Study, Minneapolis
May 5-9	**Recent Advances in Therapeutics.** University of Michigan, Ann Arbor
May 5-9	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
May 5-16	**Clinical Use of Radioisotopes.** University of Tennessee College of Medicine, Memphis
May 5-17	**Two-Week Course in General Surgery.** Cook County Graduate School of Medicine, Chicago
May 5-23	**Cardiology.** N.Y.U., N.Y.C.
May 6-8	**Surgery in Acute Trauma.** Brooke Army Medical Center, Ft. Sam Houston, Texas
May 7	**Casts, Splints and Bandages.** U.C.L.A., Los Angeles
May 7	**Third Annual Trauma Day.** University of Nebraska College of Medicine, Omaha
May 7-8	**Clinical Neurology.** University of Michigan, Ann Arbor
May 8-9	**Allergy Conference.** University of Nebraska College of Medicine, Omaha
May 9-10	**Second AMA Legal Conference.** Drake Hotel, Chicago
May 11-15	**Congress of the French Society of Ophthalmology.** Paris
May 11-15	**Joint Meeting of the American, British and Canadian Orthopaedic Associations.** Shoreham Hotel, Washington, D.C.
May 12-14	**Electrocardiography II.** Tufts University School of Medicine, Boston
May 12-16	**Annual Meeting, American Psychiatric Association.** Civic Auditorium, San Francisco
May 12-16	**General Surgery.** Cook County Graduate School of Medicine, Chicago
May 12-16	**Cardiovascular Diseases in the Child and in the Adult.** University of Illinois College of Medicine, Chicago
May 12-16	**152nd Annual Meeting, Medical Society of the State of New York.** Hotel Statler, New York City

(Continued on page lx)

Editorials

THE UNIVERSITY ISSUE

As is customary each year, the April issue of the JOURNAL contains scientific articles only from our S.U.I. College of Medicine. The papers this year comprise a symposium on several of the problems which are encountered in the treatment of diabetes mellitus.

Diabetes mellitus is truly a live topic. A diagnosis of diabetes no longer is virtually a death sentence, as it was 40 years ago, and diabetic deaths hit their peak (26 per 100,000) in 1940, but still the disease killed 27,000 people and ranked eighth among the major causes of death as recently as last year.* It is doubtless far more important that of the 2,000,000 Americans who have diabetes, the disease has been diagnosed in no more than half.

We know that the readers of the JOURNAL will be most appreciative not only of the splendid data that these papers contain but of the evidence they furnish that research of very many different sorts is continuing to progress at the University.

The editors wish especially to thank the committee of which Dr. E. W. Scheldrup is chairman for its assistance in the preparation of this issue.

THE 1958 ANNUAL MEETING

The editors of the JOURNAL urge each member of the Society to spend April 20-23 in attending the Annual Meeting at the Des Moines Veterans Memorial Auditorium. Each doctor is sure to feel rewarded after hearing the lectures that are to be delivered and seeing the exhibits that will be displayed there. The complete program appeared in the March issue of the JOURNAL.

There will be a feature presentation at each of the general sessions, which will take place on Monday, Tuesday and Wednesday mornings. The virology symposium on Monday morning will include addresses by Dr. Joseph A. Bell, of the National Institutes of Health, Dr. Tom D. Y. Chin, from the U.S.P.H.S. installation at Kansas City, and Dr. Phillips Thygeson, of San Francisco.

This year's Erskine Memorial Lecture, always a highlight of the ISMS Annual Meeting, will be delivered on Tuesday morning by Dr. Ralph M. Caulk, an outstanding radiologist from Washington, D. C. As an indication of what his remarks will cover, Dr. Caulk has said: "There are many signs and symptoms in common forms of head and neck cancer of which physicians lacking a high index of suspicion are unaware. Early diagnosis and the exact anatomic site of origin play a large part in determining the prognosis and the method of treatment, whether surgical or radiotherapeutic."

Physicians will be richly recompensed for staying to the end of the Annual Meeting. At the final general session, on Wednesday morning, five out-of-state speakers will participate in a symposium on "New Problems in Cancer": D. John B. Heller, of Bethesda, Dr. Sprague H. Gardiner, of Indianapolis, Dr. Samuel Dvoskin, of New York City, Dr. Danely P. Slaughter, of Chicago, and Dr. Caulk. The meeting will conclude with the inaugural address of the new president of the Society, Dr. Walter D. Abbott, of Des Moines.

Though, as in previous years, a considerable number of the prominent out-of-state men will make two appearances, one at a general session and the other at a section meeting, so many of them have been invited to participate this year that a few can be heard only at afternoon (section) gatherings. Dr. William L. Proudfit, a Cleveland cardiologist, and Dr. Jerome P. Murphy, a Creighton surgeon, will make their only appearances as participants in a symposium on atherosclerosis at the meeting of the Medical Section on Monday afternoon. As is suggested by the fact that a surgeon is to appear on the internists' program, general practitioners and specialists of all sorts should find that session worth their while. During the Monday afternoon meeting of the Surgical Section, Dr. George Crile, Jr., of Cleveland, will make his only appearance, speaking on "Some Problems in the Treatment of Cancer."

At the 1958 ISMS Annual Meeting, there are to be more section meetings than ever before—10 of them. The new ones are those on allergy, general practice and anesthesiology. The section on medical economics that was inaugurated in 1957 will be repeated this year.

The scientific exhibits this year are to be slightly less numerous, but many of them will be larger, and the exhibitors say that they will be better than ever before.

Because the national economy is wheezing a bit, technical exhibits have been more difficult than usual to secure this year. It may not be readily apparent that there are fewer of them, but the effects will be noticeable when the Annual Meeting receipts and expenditures are totaled and compared. Because the technical exhibitors help to defray the costs in the hope of showing their wares to considerable numbers of physicians, it is up to each individual member of the Society to do his bit toward keeping them coming year

* "Progress in Health Services," February, 1958. Health Information Foundation.

after year. Since few of the firms expect actually to sell merchandise or even to take orders, doctors shouldn't permit their innate sales resistance to keep them away. All the doctor needs to do is to spend the recesses between programs in visiting the booths and passing the time of day with the detail men. In doing so, he will almost certainly learn of some products for which he will sometime find a need, and he will be rendering assistance to the Society's officers and headquarters staff.

The two principal entertainments on this year's Annual Meeting program are the cocktail party and dance which the Woman's Auxiliary is presenting at the Savery Hotel on Monday evening for the benefit of its Student Nurses' Loan Fund and the A.M.E.F., and the Annual Banquet, at the same place on Tuesday evening. Doctors' wives, whether they are Auxiliary members or not, are cordially invited to the annual sessions of the Woman's Auxiliary to the Iowa State Medical Society, which are to take place on Monday and Tuesday during the ISMS Annual Meeting.

Physicians who don't plan on commuting to the Annual Meeting, are urged to make their hotel reservations promptly.

A WARNING

The Continental Casualty Company has pointed out that in two recent instances in Laredo, Texas, doctors mistakenly advised patients to drop sickness and accident policies which they held with that firm. The patients had diabetes and a history of myocardial infarction, respectively, but their policies—though the doctors hadn't troubled to discover the fact—were "substandard forms" that provided coverage despite their disabilities.

The insurance company declares, quite justifiedly, that a physician's undertaking to give advice regarding insurance policies with which he is unfamiliar is just as reprehensible as is Mrs. Brown's volunteering advice to Mrs. Smith on a treatment for Mr. Smith's constipation. Let's take pains not to stand in the way of the commercial carriers' attempts to provide health coverages for the physically impaired—the class of people who need protection most of all.

REVIEWS OF MEDICAL MOTION PICTURES

The ninth annual publication of "Reviews of Medical Motion Pictures" is now available on request from the AMA Film Library, 535 North Dearborn Street, Chicago 10. This publication is prepared by the Council on Scientific Assembly, Motion Pictures and Medical Television, and contains reprints of all film reviews published in JAMA during 1957.

MULTIPLE CARCINOMAS OF THE LARGE INTESTINE

Recent articles by Moertel *et al.*[1] and Carlson and Gobbel[2] emphasize the fact that carcinomas of the colon may have multiple (metachronous) foci of origin. This statement comes as no great surprise, but it serves to remind us that we must be vigilant.

A total of 6,012 patients with adenocarcinoma of the rectum and colon were seen at the Mayo Clinic during a 10-year period. Of that group, 4.3 per cent had multiple lesions, either simultaneously or at an interval following the original resection. Rigid criteria had been adopted so that the investigators might be sure they were not dealing, in any instance, with a local recurrence of the same carcinoma. They felt that their figure of 1.7 per cent independent interval colon carcinomas was much too low because of difficulties in their case study. The average interval between surgery and the discovery of additional carcinomas was 5.5 years, and in 64 per cent the interval was less than five years.

The lessons to be derived from studies such as these are that patients with carcinomata are more likely to develop new, separate lesions than are normal individuals. The situation in colonic lesions is somewhat similar to that in cancer of the breast. Women who have had cancer of one breast are four times as likely to develop a second primary cancer in the remaining breast as are women in the same age group with no previous mammary cancer.[3] It is of the utmost importance, therefore, that the physician be on the alert for the development of a new and different carcinoma in patients who have already been operated upon for cancer of the colon. As Moertel and his associates have said, "There could be few errors more inexcusable than to assume falsely that such a second lesion was a metastasis or recurrence and to employ only palliative therapy."[1]

Moertel and his coworkers suggest, therefore, that when a cancer of the colon is found, the entire colon shoud be reexamined by x-ray, proctoscopy and direct vision as completely as is practicable. They further suggest that the physician must assume responsibility for impressing upon the patient the necessity for regular follow-up examinations. These should include proctoscopy and x-rays done at intervals of no longer than one year for at least five years after surgery. It is indeed gratifying, when one discovers such a second, separate cancer of the colon, to find that it is resectable.

1. Moertel, C. G., Bargen, J. A., and Dockerty, M. B.: Multiple carcinomas of large intestine. Gastroenterology, 34: 85-98, (Jan.) 1958.
2. Carlson, R. I., and Gobbel, W. G., Jr.: Metachronous primary carcinomas of colon. Gastroenterology, 34:121-125, (Jan.) 1958.
3. Kilgore, A. R.: Incidence of cancer in second breast after radical removal of one breast for cancer. J.A.M.A., 77:454-456, (Aug. 6) 1921.

metaphosphate produced markedly higher blood levels than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium phate, found [illegible]

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

[illegible] of sodium metaphosphate were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies both in rats[8] and in man[9] and include additional findings that serve to explain, fairly conclusively, the various discrepancies that have been mentioned.

The experiments in rats[8] were carried out to study the effects of citric acid, dicalcium phosphate, sodium metaphosphate, food, oil and sorbitol on the serum antibacterial activity produced by the administration of tetracycline hydrochloride or tetracycline base. Citric acid administered in equal weight with tetracycline hydrochloride gave the highest concentrations of all the preparations studied. No enhancing effect was obtained from citric acid when given with tetracycline base. Dicalcium phosphate and food resulted in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetracycline is related to its ability to form complexes [illegible] unavailable for

[illegible] addendum to the last mentioned paper of [illegible] et al.[7] indicates that in their study the capsules of tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the presence of calcium as fillers in some of the capsules and not in others.

This, however, fails to explain the most recent findings of Welch and Wright,[10] who compared the absorption of three capsules, each containing 250 mg. of oxytetracycline hydrochloride — one without any adjuvant, one with 250 mg. of citric acid and the third with 380 mg. of sodium hexametaphosphate; no other filler was contained in any of these capsules. In triple

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1. Eisner, H. J., Stirn, F.
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2. Kaplan, M. A., Dickison
F. H. New, rapidly absor
biotic Med. & Clin. Therap.
3. Welch, H., Lewis, C. N., St
concentrations of three tetr
single oral dose in man.
222. 1957.
4. Pulaski, E. J., and Isokane
blood serum, bile, and pro
ministration of tetracycline
drochloride. *Antibiotic Me*
5. Welch, H., Wright, W.
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metaphosphate. *Antibio*
6. Welch, H., Wright, W.
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7. Welch, H., Wrig
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Looks at Smoking, di

Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958

ACHROMYCIN* V

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tetracycline and citric acid

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President's Page

It is always a great satisfaction to a president, on leaving office, to know that his term has been successful. He is especially gratified when he knows that such success was gained through the team work, sacrifice and diligent efforts of a large group from the membership of the organization.

I can say humbly and modestly—since the success has been due to the work of others—that our Iowa Society has continued to gain national recognition. Our accomplishments have been so numerous that I could not mention all of them here. Instead, I call your attention to the HANDBOOK OF THE HOUSE OF DELEGATES.

The people who eased the burdens of my office by willingly and capably assuming responsibilities include my fellow officers, the committeemen, the members of the Society who have stood firmly with us in all of our undertakings, and the employees in our office.

Too much credit cannot be directed to the committeemen—some 200 of them—who stood ready to help when called. Always, they were willing to serve and gave their time unselfishly to the work of the Society. Our employees, most of whom I have known for years, are all capable and devoted people. They have done a superb job of organizing information and getting it to us. Their attention to details, arranging meetings, publishing the JOURNAL, correlating group activities and the like, have laid the groundwork for our progress. Most of all, I have appreciated their advice and guidance. It is good to know that we have a smooth-functioning organization that goes continuously forward according to prescribed methods and procedures without interruption, as sets of officers succeed one another from term to term.

Thus, just as I found things completely under control when I took office, the new president will find things in good order and in capable hands. In addition, he will enjoy as I did the inspiration of an excellent group of officers. Our Society benefits from the fact that many of them carry over from year to year, and I am sure they will serve as diligently in the future as they have in the past.

My entire term of office has been a joy and pleasure for me. Nothing has given me greater satisfaction than the fact that for the first time in many years, attendance at called meetings has been almost 100 per cent. This represents enthusiasm and a spirit of cooperation that I should like to see continued.

Fred Sternagel

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

GENERAL PATHOLOGY, SECOND EDITION, ed. by *Sir Howard Florey*. (Philadelphia, W. B. Saunders Company, 1958. $16.00).

CURRENT THERAPY, 1958, ed. by *Howard F. Conn*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $12.00).

THE ESSENCE OF SURGERY, by C. *Stuart Welch*, M.D., and *Samuel R. Powers, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $7.00).

STRABISMUS OPHTHALMIC, SYMPOSIUM II, ed. by *James H. Allen*, M.D. (St. Louis, The C. V. Mosby Company, 1958. $16.00).

THE YEAR BOOK OF DRUG THERAPY (1957-1958 YEAR BOOK SERIES), ed. by *Harry Beckman*, M.D. (Chicago, The Year Book Publishers, Inc., 1957. $7.50).

DIABETES AS A WAY OF LIFE, by *T. S. Danowski*, M.D. (New York City, Coward-McCann, Inc., 1957. $3.50).

AIDS TO ANESTHESIA, FOURTH EDITION, by *Victor Goldman*, M.R.C.S. (Baltimore, The Williams & Wilkins Co., 1957. $3.50).

BOOK REVIEWS

CHRONIC ILLNESS IN THE UNITED STATES, VOL. II, CARE OF THE LONG-TERM PATIENT, by The Commission on Chronic Illness. (Cambridge, Massachusetts, Harvard University Press, 1956. $8.50).

This book is an excellently prepared summary of the care being given the long-term patient. It is one of a series of surveys on chronic illness which also includes (Vol. I) PREVENTION OF CHRONIC ILLNESS; (Vol. III) CHRONIC ILLNESS IN A RURAL AREA; and (Vol. IV) CHRONIC ILLNESS IN A LARGE CITY. The agency conducting the studies is an independent one sponsored by the American Hospital Association, the American Public Health Association, the American Public Welfare Association and the American Medical Association.

The work is a thorough study of the problem of diseases of the aged, as seen both in private homes and in institutions. It discusses personal requirements, responsibilities of the physician, and the work that can be delegated to social service agencies and institutions. Rehabilitation facilities are discussed. Needs of the community—in particular the alterations that must be made in educational facilities—are tabulated in bold type. The areas in which research is needed are documented.

We are going through an era of increasing awareness of the problem of aging, and many studies are being carried out and many surveys are being made. The ones being conducted by the Commission on Chronic Illness are the most extensive and authoritative that I have learned of. Certainly these are surveys that must be made. Americans excel in making surveys, and the present book represents a pinnacle of achievement. The work was excellently conceived, and has been well worked out and well transcribed.

If action follows on its heels, the book will have been worthwhile. Certainly those who are interested in the socio-economic phases of the care of the chronically ill should be acquainted with this series, and this book in particular, before they go off bravely making surveys of their own.—*Daniel A. Glomset*, M.D.

METHODOLOGY OF THE STUDY OF AGING, VOL. III OF CIBA FOUNDATION COLLOQUIA ON AGING, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor*, B.Sc. (Boston, Little, Brown & Co., 1957. $6.50).

The Ciba Foundation is engaged in a number of activities for the purpose of improving the cooperation between medical and chemical research workers in different countries. One of the things it has done is to publish reports of colloquia in a number of different fields, following meetings that have taken place, for the most part, in London.

The present volume is, therefore, one of a number of rather serious and basic studies. It contains transcriptions of lectures and discussions by experts from countries throughout the Western World. Some of the topics discussed are adaptation, study of aging of cells, clinicopathologic tests of aging, relation of sex to aging, and relation of nutrition to aging. An occasional picture is included, and there are occasional tables.

As are the other books that compose the series of Ciba Colloquia, it is on an intensive, serious and penetrating level. Therein lies material for perusal by the serious student, rather than the casual reader. This volume, therefore, belongs in a university library or on the reference shelf of a research center.

One cannot deny the tremendous importance of these studies to an understanding of the aging process. Medical science is striving to enable man to live a longer and happier life. Would that the sociologists, the political scientists and the eugenics experts were as far advanced!—*Daniel A. Glomset*, M.D.

HORMONES IN BLOOD, VOL. II OF THE CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY, ed. by *G. E. W. Wolstenholme* and *Elaine C. P. Millar*. (Boston, Little, Brown & Company, 1957. $9.00).

These transcripts of informal conferences among experts in highly specialized and restricted fields of medical investigation are stimulating but somewhat esoteric reading for the practicing physician.

The conferees, assembled from many countries, met for several days in London to talk shop. The current volume touches on the investigative methods and objectives in the study of such blood-borne substances as insulin, thyroid hormones, catechol hormones, neurohypophysial hormones and iodine.

I was interested in the report that there is evidence to indicate that trophic factors such as the thyroid-stimulating hormone may contain separate localizing

and stimulatory properties. As one might have expected, there are a number of timely studies on adrenal corticotrophic hormone in the blood.—*Herman J. Smith*, M.D.

CLINICAL HEART DISEASE, FIFTH EDITION, by *Samuel A. Levine*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $9.50).

The steady popularity of this standard textbook is evidenced by the fact that it has gone through five editions since it first appeared in 1936.

One reason for its wide acceptance is Levine's persistent adherence to the personal approach—the Osslerian bedside manner of teaching. "I remember a young man who. . . ."; "I recall an instance in which. . . ."; "It was my duty some years ago to. . . ."—such examples and illustrations enliven almost every page. The clarity and simplicity of his style are a welcome relief from the ponderous prose of many current textbooks, and are little marred by the presence of an occasional typographical error.

The new edition includes a conservative appraisal of progress in surgery for acquired valvular heart disease. There is a brief chapter on congenital heart disease by Dr. Alexander Nadas, cardiologist at Children's Hospital, Boston. Approximately one-third of the new edition is devoted to a chapter on clinical electrocardiography and vectorcardiography by Dr. Harold D. Levine.

The eminently clinical appeal of this work makes it one that the practitioner will find constantly useful. There is an adequate index, but no bibliography.—*Herman J. Smith*, M.D.

THE MORPHOLOGY OF HUMAN BLOOD CELLS, by *L. W. Diggs*, M.A., M.D., *Dorothy Sturm* and *Ann Bell*, B.A. (Philadelphia, W. B. Saunders Company, 1956. $12.00).

This is primarily an atlas for medical students and technologists. The authors, who are well qualified in this field, have used colored drawings of peripheral blood and bone marrow smears to demonstrate the morphologic appearance and characteristics of red and white blood cells in their normal states and in a wide variety of pathologies. The terminology—frequently a cause of contention among hematologists—is that recommended by the Committee for the Clarification of Nomenclature of Cells and Diseases of the Blood and Blood-Forming Organs, sponsored by the American Society of Clinical Pathologists and the American Medical Association (1949-1950).

The more common synonyms are given. The first third of this attractively bound book is taken up by the color plates and identifying charts. These are of excellent quality, though in some cases the contrasts within the cell, particularly within the nucleus, are more striking than are normally found. The variations in any particular cell type are well demonstrated.

The remaining two-thirds is taken up by text, amplified with black-and-white photographs and drawings of normal and pathologic red and white blood cells, with a short section on technics—blood smears, bone marrow smears, reticulocyte counts, L-E cell preparations, peraxidase stain and detection of sickled erythrocytes.

The clear, labelled color plates make quick reference easy, and the lucid, concise text is easy reading. Although it may contain a little more than a medical student needs to know, he would have no difficulty in following it. Although not as detailed as some other atlases, it is not intended to be, and it fulfills admirably the objectives of the authors.—*Francis C. Coleman*, M.D.

THE HEALING OF WOUNDS, A SYMPOSIUM ON RECENT TRENDS AND STUDIES, ed. by *Martin B. Williamson*, Ph.D. (New York City, Blakiston Div., McGraw-Hill Book Company, Inc., 1957. $7.00).

This book represents the contributions made at a symposium on the healing of wounds which was held at the Stritch School of Medicine, at Loyola University, Chicago.

The biochemistry and molecular approaches to wound healing, such as metaplasm of proteins, vitamin C, etc., are discussed in some detail. In addition, there are several chapters concerned with the clinical aspects of the problem.

In my opinion, this book would have little mass appeal among physicians, but would be an excellent reference for the surgical section of a hospital library. —*Charles C. Edwards*, M.D.

THE SPECIALTIES IN GENERAL PRACTICE, SECOND EDITION, ed. by *Russell L. Cecil*, M.D., and *Howard F. Conn*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $16.00).

This is a very interesting volume, containing chapters on various specialties, each written by a competent man in the particular field, and giving good thumbnail sketches of a multitude of subjects. It is designed as a ready reference for the general practitioner of medicine, and undoubtedly would be of considerable service.

The diagnosis and treatment of a host of conditions are covered. Even some minor surgical procedures and a number of relatively elaborate diagnostic methods are described.

The volume could serve well in the ready-reference library of the general practitioner, and there are many instances in which it would help him in his daily work. But no one book of some 800 pages could ever safely be relied upon as a "textbook of general practice." General practice necessitates at least a general knowledge of a number of the specialties, the constituents varying somewhat with the special interests of the individual doctor. On some occasions the general practitioner would need and want much more knowledge on a particular problem than he could find in this tome.

The most flagrant omissions are in the field of general internal medicine—gastroenterology, cardiology and diseases of the lungs. These subjects perhaps occupy a major position in general practice.—*William M. Sproul*, M.D.

PLANNING NEW INSTITUTIONAL FACILITIES FOR LONG-TERM CARE, by *Edna E. Nicholson*, executive director, The Institute of Medicine of Chicago. (New York City, G. P. Putnam's Sons, 1955. $4.50).

The book is in effect a report of a 10-year study conducted by the Institute of Medicine of Chicago concern-

ing the care of chronic or long-term patients, as regards their projected needs in the way of buildings and related items. It does not deal with the professional care of long-term patients and the aged, but offers practical advice and assistance to those desiring to build institutions, to equip and staff them, and to manage them effectively and economically.

The book is based on the actual experience amassed in Chicago's Central Service for the Chronically Ill, in which the author was a consultant on the problems that have arisen in planning more than 100 new institutions, new units, homes for the aged, nursing homes, rehabilitation facilities and units for long-term care attached to general hospitals.

Over 17,000 patients have served as the basis for the author's statements regarding the characteristics and requirements of those who need care in such institutions. In addition, the Central Service has worked closely with over 300 existing homes and institutions, and the book contains reports of their handling of economic and operational problems. Thus, the book is filled with cogent material for anyone who plans to build or operate such an institution. Indeed, it is *must* reading for such a person.—*William M. Sproul*, M.D.

DRUGS—THEIR NATURE, ACTION AND USE, by *Harry Beckman*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $15.00).

This work is a standard pharmacologic text written for the undergraduate course in the subject. The material is presented in three divisions, the first two of which are the history and mechanics of pharmacology. The author covers the source, nature and fate of drugs, as well as addictions and hypersensitivities to them. The discussion is interesting and the style is authoritative.

The third section is devoted to the pharmacodynamics and practical application of drugs. The chapters are arranged according to organs or organ systems. Of considerable assistance is the departure from the exclusive use of generic terminology, or at least the side-by-side inclusion of the proprietary designations of each drug. This is of particular assistance when, for example, one has some difficulty remembering that the generic designation for Ecolid is chlorisondamine, or that Sucaryl is more properly called calcium cyclamate.

The text may be said to suffer only from the impossibility of assembling data rapidly enough so that his compilation may even momentarily be abreast of the flood of new drugs that are being offered for clinical use. This difficulty, however, may be of no more than minor import, since a good basic groundwork in the subject will enable the student to fit the new drugs, as they appear, into his thinking pattern without monthly revisions of the basic text.—*Samuel J. Zoeckler*, M.D.

LICENSE SUSPENSION FOR TAX EVASION

The Supreme Court of the State of Washington has upheld that state's medical disciplinary board in suspending the license of a physician who had been convicted of filing a fraudulent income-tax return. Washington adopted a new and strict medical disciplinary act in 1955.



As is its annual custom, the ISMS sent a delegation to Washington, D. C., a few weeks ago to consult with Iowa senators and representatives about proposed federal legislation in which physicians are interested. In the picture, from left to right, are (1) Millard Carlisle, secretary to Rep. Cunningham; (2) Thomas H. Alphin, M.D., director of the AMA Washington office; (3) Mr. Peters, secretary to Rep. Coad; (4) Mr. McAuley, secretary to Rep. Hoeven; (5) Rep. Fred Schwengel, First District; (6) Robert Case, secretary to Rep. Gross; (7) Rep. Henry O. Talle, Second District; (8) Bill De Yermand, secretary to Rep. Jensen; (9) Nobel W. Irving, M.D., Des Moines; (10) F. C. Coleman, M.D., Des Moines; (11) Senator Bourke B. Hickenlooper; (12) Robert B. Throckmorton, Des Moines attorney; (13) Fred Sternagel, M.D., West Des Moines; (14) Charles Freberg, secretary to Rep. Schwengel; (15) Rep. Paul Cunningham, Fifth District; (16) Senator Thomas E. Martin; (17) Rep. H. R. Gross, Third District; (18) William J. Kennard, M.D., deputy director, AMA Washington office; (19) Russell Turner, secretary to Senator Martin; (20) Rep. Charles B. Hoeven, Eighth District; and (21) Dan O'Brien, secretary to Senator Hickenlooper.

Iowa Academy of General Practice

MEMBERSHIP

Over 23,000 general practitioners have recognized the benefits provided by the American Academy of General Practice, and compose the memberships of its state, provincial and territorial chapters. They recognize that the Academy's postgraduate-study requirement is almost literally its backbone. Almost all of the members are classified as "active," and pride themselves on that fact. Yet in all probability, many of them do not fully understand what the various other types of memberships are.

Regardless of classification, all members must be of high moral and professional character. For active membership, there are certain additional requirements. The physician must be engaged in the general practice of medicine or surgery. He must have graduated from a medical school approved by the AMA. He must be duly licensed to practice in the state or province in which he resides, and he must be a member of the AMA's constituent state or territorial society there (or the Canadian Medical Association's provincial society, if he is a Canadian). He must have had at least one year of rotating internship at an acceptable hospital, or the equivalent in postgraduate training. In addition, he must have completed one of the following: (1) two years of graduate training acceptable to and approved by the AAGP Commission on Education; or (2) one year of graduate training acceptable to and approved by the AAGP Commission on Education, followed by two years of general practice; or (3) three years of general practice.

Credit for active service as a medical officer in the United States Army, Navy, Air Force or Public Health Service is allowed as follows: One year or more of service shall be acceptable for one year of the graduate training requirement. All time in the service shall be accepted toward fulfilling the practice requirement. Election to an active membership shall be for a maximum of three years, and at the expiration of such term, the member shall be eligible for reelection by the board of directors of his constituent chapter.

No member shall be reelected to membership who has not, during the preceding three years, completed a minimum of 150 hours of postgraduate study of a nature acceptable to the AAGP Board of Directors. Fifty of those postgraduate study hours must be acceptable as Category I.

"Active-exempt" membership includes those active members who are past 70 years of age and/or have been engaged in active practice for more than 30 years. This classification must be requested by the member, and it is granted by the board of directors of the member's constituent chapter. Active-exempt membership is granted for a period of three years, and at the expiration of such term the member shall be eligible for reelection to it by the board of directors. Active-exempt members are not required to attain the postgraduate study credits required of active members.

"Associate" membership usually is granted to a physician who is not yet eligible for active membership. He must be a graduate of a medical school approved by the AMA. He may be an intern or a resident engaged in an active training program, or a physician in general practice who has not as yet fulfilled the active-membership requirements. Election to associate membership is for a maximum of one year, but the constituent chapter's board of directors may renew such membership annually until the physician becomes eligible for active membership. Any associate member who fails of election to active membership within a year after becoming eligible shall be dropped from the Academy rolls. Associate members are not required to maintain the postgraduate studies required of active members.

"Inactive" membership is granted to hitherto active members who are incapacitated by reason of illness, accident, age or infirmity, and are unable to engage in active practice. Physicians on temporary military duty are also eligible. Election to inactive membership must be requested by the member from the board of directors of his constituent chapter. Inactive membership is granted for a maximum period of one year, and the board of directors may renew it annually. Inactive members are not required to maintain the postgraduate studies required of active members.

"Sustaining" membership is granted to Academy members who have ceased the active practice of medicine but desire to continue their association with the organization. They are exempt from postgraduate study requirements.

"Honorary" membership is granted to persons

of distinction who have rendered outstanding service to the American Academy of General Practice or to the medical profession, and to distinguished members of the Academy who have retired from practice. It is conferred for life by the AAGP House of Delegates. Honorary members are not required to fulfill postgraduate study requirements.

Attention is called to the "active-exempt" classification. Each year there are hitherto active members who become eligible for transfer to this status, but they must request such transfer from their respective chapters.



ONE OUT OF EIGHT IS A PROBLEM CHILD

At a conference early in February at Stuyvesant Polyclinic Hospital, New York City, Dr. Frank Ayd, Jr., told an audience of physicians that one out of every eight school children has a scholastic or behavioral problem because of underlying psychic disorders or brain damage. Dr. Ayd is chief of psychiatry at Franklin Square Hospital, Baltimore.

These children are considered "unmanageable" or "bad" because of a lack of recognition on the part of physicians, parents and teachers of the physical or emotional disturbances causing their behavior, he said. Proper diagnosois of the problem, together with selected drug therapy and psychological care can bring dramatic relief.

Dr. Ayd reported that some children can be changed from "devils" to "angels" with proper drug therapy, when their difficulty is hyperactivity or hyperkinosis symptomized by restlessness, short attention span, disruptive and aggressive actions, and resulting from neurosis, schizophrenia, birth trauma or brain injury early in life. Regardless of their intelligence, hyperkinetic children are unable to concentrate and can be a disruptive influence in school. Use of a selected tranquilizer, antihistamine or anticonvulsive preparation allows them to relax and concentrate without being hampered by sedation of other effects.

Psychological care, sometimes for both parents and child, is desirable, Dr. Ayd noted. Also, a change in environment may be called for—such as transfer from one school to another.

"Anxiety is the most common emotional disturbance. It may reflect a temporary reaction to a stressful situation, or it may be a persistent manifestation of a serious underlying disorder," Dr. Ayd said. Depending upon the reaction of the child, tranquilizers such as meprobamate, chlorpromazine or reserpine are suitable for anxiety conditions. If the child also requires a physical build-up, Dr. Ayd said, a preparation of reserpine with vitamins B_1 and B_{12} called Somatovite can be used.

At the same meeting, Dr. Emanuel Dubow, attending pediatrician at Beekman-Downtown Hospital, New York City, reported that the optimal state of physical well-being is necessary, for "physical problems can greatly increase the difficulties of proper developmental, social and psychological guidance for these children."

The commonest pediatric finding, he said, is poor appetite, with a consequent poor level of general nutrition, and decreased energy and activity potentials. "Fatigue comes easily, and with it increased irritability and increased difficulty of management," he said.

Dr. Dubow reported on a series of six studies of 110 hyperactive, underweight children. In treating them, he used the Somatovite preparation containing small doses of reserpine with high vitamin B_1 and B_{12} content. Children in two groups ranging in age from 2 to 12 years gained an average of .19 lbs. per week—almost five times as much as those without drug therapy. During the 32 weeks of the study, he said there were no side effects.

GERIATRIC MEDICINE

On Saturday and Sunday, May 24 and 25, the Washington University School of Medicine's Division of Gerontology will conduct a postgraduate course in geriatric medicine, with special emphasis on heart disease and the psycho-social problems of later life. It will be given on the University's campus in St. Louis, and no tuition will be charged.

The faculty will consist of outstanding authorities from the St. Louis area and from universities in other parts of the country.

AAGP members can earn Category I credit by attending.

ATTEND THE IAGP LUNCHEON

Iowa Room, Hotel Savery

12:15 p.m., Tues., Apr. 22

During the ISMS Annual Meeting

Make advance reservations by writing to the IAGP office.

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Pocahontas	C. L. Jones, Gilmore City	H. L. Pitluck, Laurens	C. L. Jones, Gilmore City
Polk	A. B. Phillips, Des Moines	D. O. Newland, Des Moines	M. T. Bates, Des Moines
Pottawattamie	S. A. Cohen, Council Bluffs	R. B. Leander, Council Bluffs	G. H. Pester, Council Bluffs
Poweshiek	J. R. Parish, Grinnell	H. R. Light, Grinnell	T. V. Niemann, Brooklyn
Ringgold	D. E. Mitchell, Mount Ayr	J. W. Hill, Mount Ayr	H. J. Hausheer, Mt. Ayr
Sac	John Hubiak, Odebolt	Manly Michaelson, Lytton	Don Michaelson, Sac City
Scott	R. A. Berger, Davenport	A. B. Hendricks, Davenport	T. W. McMeans, Davenport
Shelby	J. H. Spearing, Harlan	L. V. Larsen, Harlan	J. H. Spearing, Harlan
Sioux	C. D. Oelrich, Sioux Center	A. L. McGilvra, Sioux Center	M. O. Larson, Hawarden
Story	E. R. Peterson, Ames	J. F. Bacon, Ames	J. D. Conner, Nevada
Tama	R. W. Linthacum, Dysart	A. J. Havlik, Tama	A. J. Havlik, Tama
Taylor	R. W. Boulden, Lenox	G. W. Rimel, Bedford	R. W. Boulden, Lenox
Union	A. F. Watts, Creston	H. J. Peggs, Creston	H. J. Peggs, Creston
Van Buren	Kiyoshi Furumoto, Keosauqua	J. T. Worrell, Keosauqua	Kiyoshi Furumoto, Keosauqua
Wapello	K. E. Lister, Ottumwa	R. A. Hastings, Ottumwa	C. R. Phelps, Ottumwa
Warren	L. W. Porter, Indianola	R. C. McGeehon, Indianola	C. A. Trueblood, Indianola
Washington	C. A. Boice, Washington	G. J. Nemmers, Washington	G. E. Montgomery, Washington
Wayne	D. R. Ingraham, Sewal	C. F. Brubaker, Corydon	D. R. Ingraham, Sewal
Webster	H. H. Allen, Fort Dodge	T. J. Michelfelder, Fort Dodge	C. J. Baker, Ft. Dodge
Winneshiek	L. E. Larson, Decorah	J. W. Holtey, Ossian	E. F. Hagen, Decorah
Woodbury	P. M. Cmeyla, Sioux City	J. P. Tiedeman, Sioux City	D. B. Blume, Sioux City
Worth	R. L. Olson, Northwood	W. G. McAllister, Manly	C. T. Bergen, Northwood
Wright	G. J. Hruska, Belmond	R. F. McCool, Clarion	S. P. Leinbach, Belmond

THE DOCTOR'S BUSINESS



Life Insurance Dividends

HOWARD D. BAKER

WATERLOO

Since the average doctor carries approximately $70,000 worth of life insurance, the disposal of the dividends which his policies earn should be an important matter to him.

With regard to dividends, participating life insurance contracts usually provide the policyholder a choice among four options. (1) Under the "cash" option, dividends will be paid to him annually in cash. (2) The "premium" option provides that the dividends will be used annually as partial satisfaction of premiums due. (3) The "paid-up insurance" option provides for the use of annual dividends for the purchase of paid-up additions to the life insurance policy. (4) The "interest" option provides for the deposit of dividends with the company to accumulate at interest.

In general, options No. 1 and No. 4 have little value for the doctor who is in the process of building up his life insurance program. Option No. 1 should be chosen only by the man whose policies are already paid-up and who has no need for additional insurance. Option No. 4 lost its attractiveness when yields from other sorts of investments (even savings accounts in commercial banks) began to surpass the insurance companies' 2 or 2½ per cent, and besides, with most low-net-cost companies, the paid-up additions available under option No. 3 acquire a *cash value* which will equal or exceed the accumulation of dividends and interest over a period of years. In general, option No. 4 would be worthy of consideration only on contracts permitting the conversion of accumulated dividends and interest to paid-up insurance *at any time*. Such a privilege is relatively rare today.

It is our feeling that options No. 2 and No. 3 are most worthy of consideration by the average policyholder. Option No. 2 should be elected by the young doctor who is building up a large insurance program and wants *maximum* protection. Obviously, he can buy much more insurance by paying only the net premium (premium less dividend), than by using dividends otherwise. Later, if his financial position improves or if he becomes uninsurable, he can change his election to option No. 3 (paid-up insurance) if he wishes.

Option No. 3 is generally best for a doctor between 40 and 50 years of age who does not have as much insurance as he should have or would like, and it is also quite valuable to the man who has become uninsurable. Men in these situations can elect to have their dividends purchase paid-up additions which will increase their protection and also maintain a cash value equal to, or slightly greater than, the sum dividends and interest would have provided them if they had been left on deposit. Thus, such men would have maximum protection, but still would retain a cash reserve for retirement or for emergency use.

What about doctors who elected years ago to leave their dividends on deposit? Such a man has a sizeable accumulation drawing 2 or 3 per cent of taxable interest. His individual situation should be reviewed and probably his dividend option changed. If he needs protection through additional insurance, a paid-up insurance option should be taken on future dividends and—to the extent possible—on accumulated dividends.

To the extent that paid-up additions are prohibited on the accumulation, it is our feeling that these dividends can be withdrawn and profitably invested elsewhere. That course of action should also be chosen by the man whose insurance needs are declining. He can withdraw his dividends and reinvest them at a higher return.

Before making a decision on a matter of this sort, one should review his needs and his coverage with a competent insurance agent or analyst. He must consider his over-all financial position in relation to the options that are available under the particular contracts that he owns.

If you have a dividend problem, you should consult a qualified advisor at once.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

TYPHOID FEVER IN IOWA

In 1957, 24 cases of typhoid fever were reported in Iowa. That number approximated the average of 25 cases per year for the five-year period ending in 1955.

The 62 cases of 1956 were atypical, for they included Iowa's share of the large series of cases of undetermined origin that occurred then in Iowa, Minnesota, Wisconsin and Illinois. The Iowa cases were scattered statewide, and no common factor could be found for them except that in the 21 cases from which the organism was isolated and typed, the offender was bacteriophage type E_1.

Of 1957's 24 cases, carrier sources were found for four.

	Reported Cases		
	1955	*1956*	*1957*
Typhoid fever cases, total	28	62	24
Source of infection within Iowa			
Carriers			
Newly discovered	6	7	2
Previously known			2
Secondary to other cases of typhoid		1	
Possibly water, sewage or food	9	24	6
Source of infection outside Iowa			
Mexico	1	1	
Europe			
Canada		1	
Other states in U. S.	5	1	3
Cases investigated but no source found	7	27	10
Cases not investigated			1
Deceased		4	

TYPHOID CARRIER REGISTRY

The number of names on the Iowa typhoid carrier registry has remained almost constant during the last three years. The average age of the individuals is over 60. All are adults—20 men and 45 women.

The two oldest carriers, known since the early 1930's, died within the last couple of years. One of them, a man, probably became a carrier as a result of having had typhoid fever while in service during the Spanish American War.

It is very seldom that a typhoid carrier who is known and whom we have instructed in the methods of preventing the spread of the infection is later found to be responsible for any new cases. It is worthy of notice, nevertheless, that one known and instructed carrier was responsible for two cases in 1957.

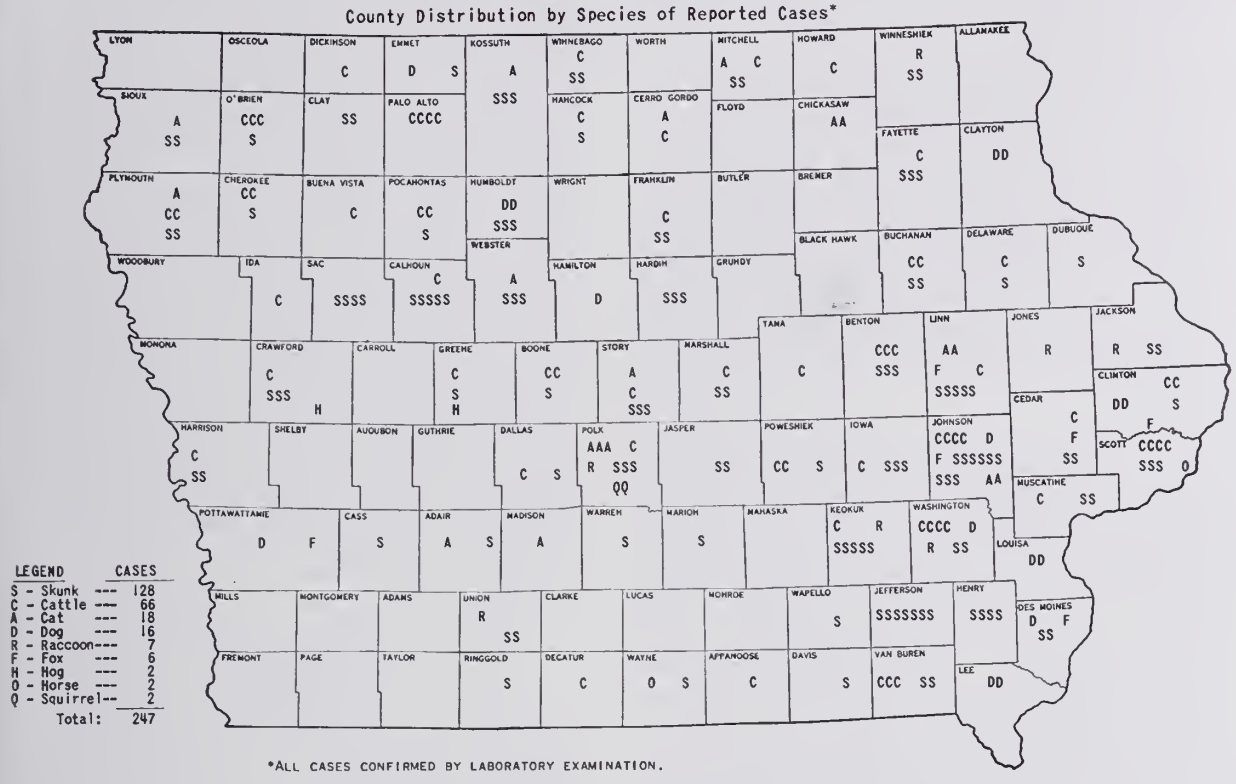
	1955	*1956*	*1957*
Carriers registered as of January 1	65	63	65
Additions to the registry	7	7	7
Discovered in Iowa	5	6	4
Transferred from other states	1		
Returned from other states	1	1	
Temporary carriers			3
Deletions from the registry	11	5	6
Deceased	4	2	3
Transferred out of the state			3
Officially released	1		
Not located	4	3	
Determined as non-carriers	2		
Carriers registered as of December 31	63	65	66

MORBIDITY REPORT FOR MONTH OF FEBRUARY

Disease	*1958 Feb.*	*1958 Jan.*	*1957 Feb.*	*Most Cases Reported From These Counties*
Diphtheria	0	0	0	
Scarlet fever	186	166	182	Jefferson, Johnson, Polk
Typhoid fever	1	0	1	Black Hawk
Smallpox	0	0	0	
Measles	408	99	1212	Clay, Dubuque, Howard, Marion
Whooping cough	3	5	8	Scott, Polk
Brucellosis	10	2	8	One from a county
Chickenpox	748	545	899	Clay, Dubuque, Linn, Polk
Meningococcus meningitis	2	3	2	Polk
Mumps	983	510	474	Boone, Clay, Polk, Pottawattamie, Woodbury
Poliomyelitis	1	0	2	Clay
Infectious hepatitis	18	13	18	Buchanan, Polk
Rabies in animals	15	12	17	Calhoun, Polk
Malaria	0	0	0	
Psittacosis	0	0	2	
Q fever	0	0	0	
Tuberculosis	38	38	23	For the State
Syphilis	103	108	67	For the State
Gonorrhea	83	51	45	For the State
Histoplasmosis	0	0	0	
Food intoxication	0	0	0	
Meningitis (type unspec.)	2	0	1	Warren, Carroll
Diphtheria carrier	0	0	0	
Aseptic meningitis	0	1	0	
Salmonellosis	4	4	0	Polk
Tetanus	1	0	0	Woodbury
Chancroid	1	0	0	Woodbury
Encephalitis (type unspec.)	0	1	0	
Influenzal meningitis	0	2	0	
Amebiasis	6	2	1	Wapello
Shigellosis	2	0	0	Boone, Polk
Influenza	9	1250*	2	Clay

* Includes late reports for January.

RABIES IN ANIMALS IN IOWA IN 1957
County Distribution by Species of Reported Cases*



LEGEND	CASES
S - Skunk ---	128
C - Cattle ---	66
A - Cat ---	18
D - Dog ---	16
R - Raccoon---	7
F - Fox ---	6
H - Hog ---	2
O - Horse ---	2
Q - Squirrel--	2
Total:	247

*ALL CASES CONFIRMED BY LABORATORY EXAMINATION.

VACCINATION OF DOGS AGAINST RABIES

Rabies is reported in dogs, as well as in several other species of domestic and wild animals in Iowa each year. The dog normally lives in close association with man and is capable of inflicting severe bite wounds. Because of these two factors, most of the exposures of man to rabies are caused by the rabid dog. Elimination of rabies among dogs would thus greatly reduce the number of persons who take the anti-rabies preventive (Pasteur) treatment each year.

Anti-rabies vaccination of dogs does give protection against the disease. Vaccination has been proved effective in laboratory experiments as well as under actual field conditions. The U. S. Army requires anti-rabies vaccination of all pets kept at an Army post or camp. Without exception, the results from this action have been good. Some Army camps have been located in areas in which rabies was present. In those instances, rabies did not develop in the vaccinated dogs belonging to Army personnel, even though they mingled with unvaccinated dogs in the area adjacent to the camp. In Iowa, no rabies has been reported among vaccinated dogs.

Anti-rabies vaccination causes practically no discomfort to the dog, and it is safe. All vaccine for animal use must pass rigid safety and potency tests of the U. S. Department of Agriculture.

The full degree of protection is not reached until about 30 days after the date of vaccination. Thus, the dog should not be allowed in contact with rabid animals during the 30-day period. Vaccination of young puppies is not always effective. Therefore, if puppies have been vaccinated before reaching six months of age, they should be revaccinated as soon as they reach that age. Anti-rabies vaccination of pet animals other than dogs is recommended also.

SUMMARY OF VITAL STATISTICS

The following table presents provisional estimates of the numbers of vital events that occurred in Iowa during 1957, as compared with the figures for 1956.

OCCURRENCE DATA

Event	*1956*	*Prov. Est. 1957*	*Difference*	*Per Cent Change*
Births	63,981	64,504	+ 523	+ 0.8
Deaths	26,527	28,008	+ 1481	+ 5.6
Fetal Deaths	865	812	– 53	– 6.1
Infant Deaths	1,302	1,345	+ 43	+ 3.3
Marriages	25,270	23,871	– 1399	– 5.5
Divorces	4,811	4,090	– 721	– 15.0

The number of deaths in Iowa during 1957 had been exceeded only twice during the preceding 50 years. Fatalities in 1918 and 1936 were greater than the estimated number for 1957 by 4,413 and 529, respectively. The 1957 death rate hadn't been exceeded since 1940. The provisional estimate of 28,008 deaths for the year was 1,505 (5.7 per cent) greater than the average for the 10 preceding

years, and exceeded the number for 1956 by 1,481 (5.6 per cent). The excess is statistically significant in both cases.

It is believed that this excess was related to the Asian flu epidemic. Influenza deaths in Iowa during 1956 numbered 37. The reported number of influenza deaths in the last three months of 1957 was 177, or almost five times the number for all of 1956. In those same three months, deaths in which influenza was a contributing factor numbered 58, and pneumonia accounted for 260 additional deaths. Though it may not be true that Asian flu was directly responsible for the excess deaths or even for a large proportion of them. it is highly probable that the recent influenza epidemic was a contributing factor in precipitating many deaths.

In the last 20 years, there have been two intervals during which the marriage rate fell below the 1957 figure. Those were the war periods of 1942-1945 and 1952. A factor that may account for the drop in the marriage rate in recent years is the decrease in the number of persons in the younger age groups due to the abnormally low birth rate during the depression years.

With the exception of the year 1952, the number of divorces in Iowa has decreased each year from the record high of 9,800 in 1946. The 15 per cent difference in the number of divorces in the years 1956 and 1957 is mainly due to the 60-day waiting period effective July 1, 1957. It is estimated that this change in the law accounted for approximately 530 of the difference of 721 between those two years.

Although the number of infant deaths increased 3.3 per cent over the 1956 figure, the difference is not significant because of the rather wide variation that is usual from year to year. There has been, however, an overall decrease in the infant death rate through the years.

The number of fetal deaths in the past year also continued its general downward trend.

FEDERAL CONFERENCE ON NURSING HOMES

At the opening session of a four-day conference on nursing-home care sponsored by the U.S.P.H.S. in Washington, D. C., in February, Surgeon General LeRoy Burney declared that the lack of enough high-quality nursing homes "keeps tens of thousands of older patients in general hospitals for prolonged periods beyond the time when they need or can even benefit from 'full dress' hospital services."

At the finance section of the conference, it was shown that the cost of constructing nursing homes varies from a minimum of $2,500 to a maximum of $14,000 per bed, depending on the services and facilities provided and also upon the geographic location. Daily patient costs vary in the same way, from as low as $4 per day in some places in the South to $9.30 in the North. If such patients were kept in general hospitals, the cost would be in the vicinity of $20 per day or more. It was estimated that 100,000 beds in substandard homes should be replaced, at a total cost of $360,000,000. No firm estimate was given of the number of new beds needed.

The conference adopted a resolution advocating federal subsidy for the construction and renovation of such facilities, and made several recommendations for improvement of their licensing and supervision. One section agreed that every elderly person in a nursing home should be assured of a private physician, and that every nursing-home operator should be advised more or less constantly by a physician. It was agreed by another section that in addition to checking upon the physical equipment and services to be provided, the state licensing authorities should also evaluate the applicant's physical, mental, financial, educational and moral qualifications.

THE PUBLIC HEALTH NURSE IN MENTAL ILLNESS

Increased knowledge and research in the medical and behavioral sciences has focused attention upon the mental health of our people. The challenge of our day is not only to acquire more knowledge about human beings and their environment, but to make a practical application of that knowledge. To be an effective community health worker, the public health nurse must have some understanding of human behavior.

She concerns herself with all the facets of family health. With her knowledge of basic human needs and her awareness of the emotional aspects of a situation, she can help persons and families to cope with their problems. She frequently is asked to help when the family routine has been disrupted and the members are undergoing emotional stress.

As a family health counselor, she encourages the family to seek treatment for emotional illness. Her knowledge of psychiatric facilities and mental health resources is helpful to the family. She interprets the diagnostic procedures and treatment routines that may be employed, and she acts as a liaison between the family and the physician or the treatment agency. She reports to, or shares with, the physician her observations of the behavior of the ill person, as well as the reactions of the family members and the community. These observations may provide meaningful information in the diagnostic work-up of an emotionally disturbed person, just as her observation of symptoms in other sorts of illness may help the physician in making a diagnosis.

Treatment of mental illness may take a long

time. Hospitalization may be necessary. The family may have difficulty in accepting the situation. The public health nurse can help explain the need for hospitalization and support the treatment regimen by helping the family to plan for the return of the patient. As she works through this critical period, she may give suggestions for changes in the patient's home environment. She may interpret the family's reaction to the hospital, and likewise may explain the hospital program to the family, thus strengthening relationships.

After the patient has been discharged from the hospital or treatment center, the public health nurse may assist the family in securing and administering medications that have been prescribed. She may alert the family to signs and symptoms of behavioral changes indicating a need for further treatment. Also, she informs the physician regarding the patient's behavior after each of her visits to the home. Not only does the nurse assist with health needs, but through listening she learns something about needs in other areas of living that contribute toward better mental health. Her knowledge of community resources in health, education and welfare may benefit the family as she refers them to other agencies for assistance with their particular needs and interests.

In brief, the public health nurse, through her observations as family health counselor, finds those persons who have emotional and mental illness. She assists the family to plan for diagnosis and treatment through referral to their physician. In the follow-up care, the public health nurse continues to give health guidance to the family. As a community worker, she creates an awareness in her families that mental illness is a disease which can be ameliorated by early treatment.

SALK VACCINATIONS FOR PRE-SCHOOL CHILDREN

On February 23, the U.S.P.H.S. began a special effort to have children under five years of age vaccinated against polio, in the wake of new evidence that the youngest age group has the highest attack rate of paralytic poliomyelitis. Surgeon General Burney said that the American Academy of Pediatrics and the AAGP will join his organization in urging physicians to concentrate on pre-school children.

Preliminary figures compiled by the U.S.P.H.S. Communicable Disease Center indicate that the 1957 paralytic poliomyelitis attack rate was highest for one-year-olds (5.7 per 100,000), next highest among two-year-olds (5.5 per 100,000), and averaged 4.4 per 100,000 for all children through the age of four years, as compared with 1.4 per 100,000 for children of ages 5 through 19, and 0.8 per 100,000 for adults 20 through 39 years of age.

Dr. Burney said that the time to give the shots is now—in advance of the polio season. There is an ample supply of vaccine on hand, he declared, and of the 111,000,000 people in the 0-40 age group, over 40,000,000 as yet have not started their series of shots. He asked that doctors urge parents to take the vaccine themselves when they bring their children for inoculation.

HUMAN BRUCELLOSIS IN UNITED STATES*
INCIDENCE IN 10 LEADING STATES, 1945-1956

	1945	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*
1	Texas 616	Texas 750	Iowa 902	Texas 561	Ill. 501	Iowa 549	Iowa 767	Iowa 724	Iowa 556	Iowa 351	Iowa 405	Iowa 360
2	Iowa 482	Iowa 638	Ill. 555	Ill. 515	Iowa 377	Ill. 447	Ill. 445	Ill. 294	Ill. 243	Ill. 203	Ill. 140	Ill. 133
3	Ill. 325	Ill. 480	Texas 460	Iowa 412	Texas 341	Texas 288	Minn. 189	Minn. 139	Minn. 133	Minn. 151	Minn. 116	Minn. 63
4	Minn. 312	Wisc. 346	Wisc. 430	Colo. 249	Minn. 271	Minn. 228	Wisc. 140	Wisc. 138	Texas 104	Wisc. 116	Wisc. 68	Mich. 52
5	Wis. 283	Minn. 331	Minn. 331	N. Y. 246	Wisc. 221	Wisc. 181	Texas 123	Texas 118	Wisc. 91	Mich. 111	Mich. 60	Nebr. 52
6	N. Y. 279	N. Y. 300	Mich. 304	Minn. 229	Mich. 196	N. Y. 149	Calif. 100	Calif. 115	Calif. 68	Texas 84	Calif. 56	Kansas 48
7	Calif. 270	Calif. 293	Calif. 286	Mich. 221	Okla. 146	Kansas 143	N. Y. 89	N. H. 77	Mich. 68	Mo. 54	Texas 51	Calif. 40
8	Mich. 250	Kansas 271	N. Y. 262	Ohio 191	N. Y. 149	Calif. 121	Ga. 84	Kansas 75	Ga. 63	La. 49	S. D. 49	Mo. 39
9	Kansas 209	Ga. 169	Colo. 183	Calif. 157	Ind. 137	Okla. 102	Va. 81	Okla. 68	Kansas 59	Calif. 48	Mo. 39	Ga. 39
10	Oregon 153	Ind. 167	Conn. 181	Ga. 146	Ga. 130	Ga. 99	Pa. 78	Ga. 64	Va. 58	Va. 46	Ga. 35	S. D. 33
U. S. Total	5,049	5,887	6,321	4,991	4,235	3,510	3,139	2,537	2,032	1,823	1,444	1,300

* Source: USPHS Morbidity and Mortality Reports.



Blue Cross
Blue Shield



Claim Costs Continue to Rise

Increased costs of hospitalization and medical-surgical care have caused all rates for prepayment coverage to rise. Ironically, the increases in premium rates are largely due to the fact that more people are using hospitals and medical facilities more frequently. The rate of hospital admissions per 1,000 persons insured continues its upward climb.

Surgical procedures performed in physicians' offices have increased markedly during the past two or three years. The claims for those operations are usually rather small, dollarwise, but now it seems that everyone is running to a doctor's office for attention after minor accidents that heretofore were treated at home by a member of the family. From a medical standpoint, that is fine, but it is bad news for the men who are trying to keep prepayment rates reasonable.

People complain vigorously about the rising costs of prepayment insurance plans, yet individually they utilize the coverage at the slightest opportunity, apparently with the intention of getting their money back each year—with a good rate of interest, if possible.

The physician's office is the health-control center for the community, and the hospital is the physician's workshop, where the more definitive sorts of treatment can be administered. The physician controls the hospital inpatient rate, and he has a responsibility to his community to guard against abuse of insurance plans.

A family unit in which there are three children and a net take-home pay of less than $300 monthly doesn't have much money left for food if it must pay $15 to $20 per month for health-care benefits, either as prepayment or as recompense for services already received.

If the medical profession fails to cooperate in eliminating abuses in doctors' offices and in local hospitals, many of our citizens will be priced out of the insurance market, and the mass of voters will demand government subsidy for adequate health care.

Woman's Auxiliary News

OUR PRESIDENT SAYS—

As I write my April letter to you, I am in the midst of county reports and a few reports from councilors, members-at-large, and chairmen of standing and special committees.

The fine experience of going through those reports is one that I wish I could have shared with all of you. They have shown in so many ways how you have accepted responsibility, not only as Auxiliary members but as active leaders in your own communities' health activities.

Our State Convention is at hand. To Dorothy Wirtz as chairman, to the Polk County Auxiliary and to Hazel Lammey, our administrative secretary, we owe a debt of gratitude. Unless you live in Des Moines, you have no idea of how hard the Polk County Auxiliary works to bring worthwhile programs and entertainment to us at this meeting, and what effort its members expend in trying to make it a little different each year. My own sincere thanks to them for all the help they have given me; let's all show our gratitude by active participation in all of the activities that they have planned!

Now, a word to all doctors' wives who are not Auxiliary members—We cordially invite you to join us and learn about our organization. We feel confident that when you have heard more about our purposes and projects, you will want to unite with us in helping our husbands and communities.

And to those of you who are already members—Won't each of you make it your responsibility to encourage some non-member doctor's wife to attend this State Convention? Remember that if a particular county has no Auxiliary of its own, every doctor's wife in it is invited to join a neighboring county Auxiliary.

SUE GERKEN

SPRING DANCE

Monday, April 21, 9:00-12:00

Grand Ballroom—Hotel Savery

Benefit—Woman's Auxiliary Educational Loan Fund and American Medical Education Foundation

Don Hoy's Popular Orchestra

Standard Medical & Surgical Company will sponsor the social hour from 8:30

IN MEMORIAM

The members of the Woman's Auxiliary to the Iowa State Medical Society were saddened to hear of the death, early in March, of Dr. John H. Matheson, of Des Moines.

COUNTY AUXILIARIES

Clay

The Woman's Auxiliary to the Clay County Medical Society met on February 28 for its annual dues-paying brunch. Since the membership consists of only nine active members, each assumes chairmanship for several projects. Elections to County Auxiliary offices and appointments to committee chairmanships are for two-year terms, and this is not the year for changes to take place.

The projects voted most successful during the past year were (1) the Handicapped Crafts Sale held at the Clay County Fair, (2) the booth maintained in the Health Building at the Fair for health-careers recruitment and (3) the sponsorship of the Future Nurses Club in Spencer High School.

Earlier in February, the Clay County doctors and their wives had been entertained at a dinner given by Dr. and Mrs. E. E. Munger, Jr. A clever Valentine motif was used throughout the evening.

On February 25, the staff of the Spencer Hospital entertained 26 members of the Future Nurses Club. Besides touring the Hospital, the girls put on gowns and masks for a visit to the operating room, where Mrs. Myrna Soholm, the administrator, introduced them to some surgical procedures and Dr. Eunice Christensen demonstrated various pieces of equipment. During the weekend that began on March 14, about 28 of the girls were taken by bus to Iowa City for a visit to the S.U.I. College of Nursing and a tour of the hospitals there. The girls had held bake sales and a Christmas coffee to raise money for a trip. A final tea will be held during Easter week to meet the costs of club operations for the remainder of the school year, and the public will be encouraged to attend.

Grundy

The Grundy County Medical Auxiliary is sponsoring the AAPS essay contest in the six Grundy County high schools, and has posted a first prize of $10. The subjects is "The Advantages of Private Medical Care," and all students in the eleventh and twelfth grades are eligible.

Hamilton

New officers for the Hamilton County Medical Auxiliary were elected on February 21 at a meeting held in the home of Mrs. R. C. Crumpton, in Webster City. Mrs. E. F. Brown was chosen as president-elect; Mrs. George Paschal as secretary-treasurer; Mrs. D. C. Anderson as BULLETIN chairman; Mrs. E. F. Rambo as legislative chairman; Mrs. J. L. Ptacek as chairman of the mental health and careers-recruitment committees; Mrs. O. C. Buxton as chairman of the TODAY'S HEALTH committee; Mrs. Paschal as chairman of public relations; and Mrs. Brown as program chairman. Mrs. B. F. Howar is the president for 1958-1959.

Jefferson

Officers of the Jefferson County Medical Auxiliary are Mrs. Jack Morgan, president; Mrs. F. H. McClurg, vice-president; and Mrs. James Dunlevy, secretary-treasurer. All of them live in Fairfield.

The Auxiliary is sponsoring the AAPS essay contest, and has offered prizes of $10, $5 and $3.

Mahaska

The Mahaska County Medical Auxiliary met on February 12, with Mrs. L. F. Catterson presiding. Plans for celebrating Doctors' Day were discussed, and various chairmen gave interesting reports.

Following the adjournment of the meeting, the members delivered cookies that they had baked as a Valentine treat for the residents at a local nursing home.

Polk

Dr. Ada Perel, a Des Moines psychiatrist, spoke on "Mental Health" at a luncheon meeting of the Woman's Auxiliary to the Polk County Medical Society on March 14 at Johnny and Kay's Restaurant. She was introduced by Mrs. Maurice Rotkow, and the hostesses were Mrs. Floyd Burgeson, Mrs. James Downing and Mrs. Earl Redfield.

Webster

The Webster County Medical Auxiliary met at the Wahkonsa Hotel, in Fort Dodge, on February 11 for a 10-o'clock coffee. Committees were appointed for the year, and plans were made for celebrating Doctors' Day on March 30.

Mrs. Dean Cooper was recently elected president of the Auxiliary. Other new officers are Mrs. Robert Drown, vice-president, and Mrs. Robert Dunn, secretary-treasurer.

Woodbury

In connection with Career Day in the high schools of Sioux City, members of the Sioux Med-Dames, the auxiliary to the Woodbury County Medical Society, sponsored a program on March 1 for young women interested in entering nursing. Conducted tours of the four Sioux City hospitals took up the first half of the afternoon, and afterward the girls were guests at a tea in the home of Mrs. Lawrence E. Pierson. Members of the Future Nurses Club of Rock Valley High School, under the guidance of Mrs. L. R. Hegg, were invited to participate. The committee for the events consisted of Mrs. E. J. Tierney, Mrs. Ernest D. Erickson, Mrs. Andrew Engelmann, Mrs. Martin Blackstone and Mrs. Charles M. Ryan.

THE CHATTER BOX

The **Ben Kilgores** and the **J. H. McNamees**, of Des Moines, have returned from a delightful Caribbean cruise.

* * *

The **Robert Sokols**, of State Center, are sporting beautiful tans, having returned from a vacation in Hawaii.

* * *

Eleanor and **Vic Johnson**, of Des Moines, are the parents of a brand new son. That makes three boys for the Johnsons.

* * *

The **Russ Conklings**, of Newton, and the **Don Newlands**, of Des Moines, have returned from a short stay in Chicago.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. J. F. Gerken, Waterloo
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Divided We Fall

The President-Elect's Address

WALTER D. ABBOTT, M.D.

DES MOINES

Mr. Speaker: As president-elect I have asked the privilege of the floor of this House to make such remarks as my predecessors have addressed to a general session after receiving the gavel. In so doing, I hope to set a precedent, for it seems that an incoming president should outline his views on medicine's principal problems at a meeting of the duly elected and working delegates, so that he may lay the basis on which to work with them in formulating a program for the promotion of the welfare of the Society.

Orators have frequently stated that medicine is at the crossroads. Today, I feel that our noble profession has gone far beyond that point. Indeed, I think it has traveled a great distance along a rough and dangerous road that its members did not choose for it. If in our driving, we are very careful, the route we are traveling will bring us to our intended destination, but it is narrow and perilous. On one side, we must watch for rock slides that may overwhelm us; on the other, where erosion has eaten great chunks from the roadway, we must avoid falling over a precipice. We need, of course, to be vigilant and to use our common sense, but if we hold fast to the ideals with which the Great Physician has endowed us, we can still succeed.

CONTINUED DANGERS OF SOCIALISM

I do not feel that we need acknowledge defeat, or indeed be pessimistic about our chances of saving medicine from socialism. It is true that so-called "liberalizations" of the Social Security Act have placed considerable portions of medical practice under federal control, and further, equally dangerous "liberalizations" are now being urged. The Forand Bill, which would extend government-financed medical care to all old-age-pension recipients, must be blocked, and federal subsidization of medical schools must be prevented. Either or both of these measures would put highly dangerous power into the lecherous hands of bureaucrats, and lead our beloved land past the corner of socialism and down a ruinous path toward totalitarianism.

Britain is providing fresh evidence of the evils that result from government-dominated medicine, and the public's attention should be called to her plight. Britain's womb-to-tomb plan is going ever further into the red. It is estimated that the individual contributions of Englishmen will be increased by as much as 37 per cent this year. In 1948, before the English National Health Service was launched, it was anticipated that its cost would be approximately $490,000,000 per year. Of that sum, $355,000,000 would come from tax funds, and the remainder ($140,000,000) from private individuals. It is now estimated, however, that the total for the next 12 months will be a staggering $2,000,000,000, of which $355,000,000 will come from tax funds, and the remainder ($1,645,000,000) from individual participants.

Our beloved land must be saved from a cancerous condition such as that. We must stand up and fight to preserve all that decent Americans cherish!

KEEPING FREE CHOICE OF PHYSICIAN

Labor has become a vastly influential force in Washington and throughout the nation, and it has billions of dollars with which to promote schemes of federalized medicines and to set up closed-panel systems of its own. I have no quarrel with organized labor as a bargaining agent and as a purveyor of social justice, but I do feel that such an agency should not usurp medical facilities or exercise control over doctors of medicine, thus destroying a segment of private enterprise and denying people their choice of professional care.

Third-party control over medicine is not in keeping with our American way of life. Changing times have led us to accept a system under which a third party—someone other than doctor and patient—has a share in determining the physician's fee and in paying it. Such an arrangement now seems necessary, and it is acceptable provided that its basis is a sytem of voluntary prepayment and of cooperation between inurance companies and physicians. But government control must never be condoned, and the patient's free choice of physicians must be maintained.

Asserting that unnecessary operations had been performed, the medical director of the United Mine Workers Welfare Plan recently undertook to restrict the miner's choice of physicians to those on an approved list. Should there be truth in his allegations, it behooves us to police our own ranks so that our professional honor may be stained no further.

PREPAYMENT FOR THE AGED

I propose that serious study and action be in-

stituted immediately so that we may take a strongly positive approach to the problem of providing medical and surgical prepayment plans for groups of people who, for one reason or another, do not now have them. Only by such means can our honored profession escape political control, and the endless injustices and exorbitant costs of bureaucracy.

Let me urge upon you the necessity of moderation in assessing fees, and the advisability of full cooperation among ourselves. We are privileged to be our brother's keeper, and we can discharge that responsibility only if we do our best to understand and help one another.

United, we succeed in our God-given mission of unselfishly preserving or restoring health. DIVIDED, WE FALL!

DIABETES SCREENING TESTS

Results of approximately 11,000 diabetes-screening (blood sugar) tests given in four Kansas counties during 1956 and 1957 have indicated that such a procedure should be made a standard public health measure. This is the conclusion of Dr. Robert H. Riedel, director of the Division of Geriatrics and Chronic Diseases, in the Kansas State Board of Health.

In the Kansas surveys, a total of 522 persons were diagnosed as positive, and 360 of that number claimed no history of diabetes.*

The test used in Kansas is performed on 0.1 cc. of fingertip blood, using the New Hewson Clinitron, an automatic machine. Blood tests have proved more reliable than urine tests, Dr. Riedel states.

He estimates that a casefinding project costs from 25 to 50 cents per person. That figure does not include the expense of rescreening the positive reactors by means of a sugar-tolerance test. For the latter procedure, he thinks people should be referred to their private physicians.

The blood test is somewhat less than 100 per cent reliable, for in the screening conducted at Topeka—one of the four just mentioned—there were 132 false positives. However, no complaints were received from either physicians or screenees.

"Any condition other than diabetes which is found makes the procedure of value to the patient," Dr. Riedel said, and he added, "Many 'false positives' may be early evidence of developing diabetes."

* Riedel, R. H., and Pence, V.: Diabetes mellitus. J. KANSAS M. SOC., 59:46, (Feb.) 1958.

Attend the AMA Annual Meeting

San Francisco

June 23-27

LAWSUITS AGAINST DOCTORS

The increasing number of medical professional liability claims "may result in a serious deterioration in the quality of medical care now offered by American physicians," Mr. C. Joseph Stetler, director of the AMA Law Department, told an audience of 1,000 physicians in Washington, D. C., late in March. And it certainly will make medical care increasingly expensive.

Mr. Stetler was one of the speakers at an all-day meeting on the social and economic problems now facing medicine sponsored jointly by the Medical Council of the Washington Metropolitan Area and the Wm. S. Merrell Company, of Cincinnati, a drug manufacturer.

A two-year AMA study, Mr. Stetler said, "substantiates that the vast majority of all medical professional liability claims and suits are not justly founded. In some localities the likelihood of being sued is becoming so great that the practicing physician must recognize that it constitutes a definite occupational hazard. If this situation were evidence that the medical profession is becoming increasingly inefficient, then the solution would of course be obvious. But the blunt truth is that the majority of all professional liability claims and suits filed involve physicians who are above the average in their respective groups in skill, experience and professional standing.

"Fourteen per cent of all AMA members have had a medical professional liability suit brought against them," he reported. "The highest percentage is in California, with one out of four, and the lowest is in South Carolina, with less than one out of 33. Approximately 18,500 living physicians in the United States have had a claim or suit brought against them at some time."

"If the present trend continues," Mr. Stetler warned, "and if a physician must become increasingly apprehensive of legal suits, he will be inclined to give too much time to protecting himself and less to the care of his patient. He may hesitate to assume responsibility in a case where the prognosis is poor. He will have a tendency to omit the highly successful but slightly dangerous medical procedures. He will exhaust every possible laboratory aid in every case. On the slightest indication, he will bring consultants into each case. He will prefer to keep the patient a longer time in the hospital than is necessary. By these means, although the cost to the patient is increased, the hazard to the attending physician will be reduced."

Nearly all professional liability claims are theoretically preventable, Mr. Stetler said. Once the public can be made to realize its partnership with the physician in the treatment process, and made to realize that the doctor cannot guarantee a result, the medical profession can move confidently ahead in its efforts to reduce the costs of medical care in general and of liability claims in particular.

Scientific Articles

Obstetrical Emergencies: Eclampsia, Hemorrhage and Ectopic Pregnancy

FRANK E. WHITACRE, M.D.

NASHVILLE, TENNESSEE

All of the studies on toxemia of pregnancy indicate that it occurs predominantly among primagravidas, and that most of the women whom it has affected do not have a recurrence in a subsequent pregnancy. Those facts led some early writers to believe that the disease conferred some degree of immunity, but it is now recognized that an opposite sequence of events can occur. That is, a patient may have had a normal course throughout her first pregnancy, then a pregnancy complicated by mild toxemia, and in her third pregnancy a more severe toxemia. Such a series immediately suggests an underlying renal damage with superimposed toxemia.

At first it was assumed that the placenta produced a poison or toxin which resulted in this condition—hence the name *toxemia*. It is probable, however, that the placenta acts only as a stimulus to the production of substances which contribute to the development of this syndrome.

If in the course of a normal pregnancy a woman meets death as the result of an accident totally unrelated to toxemia, certain physiologic changes are apparent at autopsy. Among them is the finding that the posterior lobe of the pituitary contains an abnormally large number of basophils. These are presumed to be the source of a pressor substance. The thyroid is somewhat enlarged during all pregnancies, with some degree of hyperplasia of the cells lining the acini. The adrenal glands are also somewhat hyperplastic. These three glands of internal secretion are known to produce pressor substances, and it is probable that the anatomical hyperplasia indicates a physiologic increase in the production of pressor substances. In toxemia, a constriction of the arterioles accounts for the rise in blood pressure. After delivery of the fetus and placenta, the glands of internal secretion return to their normal state within five or six days. It is probably not just coincidence that postpartum eclampsia is almost unknown after the sixth day. The natural question, then, is "Why don't all women develop toxemia of pregnancy?" It is reasonable to assume that most of them are protected by the elimination or neutralization of these pressor substances, but some are not.

Studies of this disease in various parts of the world seem to indicate that climate, geographical location, race and color are unimportant, but inasmuch as the great majority of affected women are in the indigent or relatively underprivileged group, it is reasonable to assume that nutrition may be concerned. Adequate consumption of protective proteins, minerals and, especially, vitamins probably aids the liver in neutralizing these otherwise physiologic substances, but this reasoning is far from being proved.

Regardless of anyone's ideas on the etiology or management of toxemia of pregnancy, it is clear that the only curative treatment is the emptying of the uterus, for as long as the functioning placenta remains intact, accidents to the patient and her baby can occur. All medical management before delivery is intended to control convulsive seizures, improve elimination and, in a general supportive way, get the patient into the best possible condition for delivery. Fortunately, spontaneous delivery will occur in more than 80 per cent of eclamptic patients. After delivery, treatment must necessarily be medical only, and in postpartum eclampsia, the objectives are the same as those mentioned above.

Method. For many years we have undertaken to move water from the tissue spaces into the central

Dr. Whitacre is a member of the staff in obstetrics and gynecology at the Vanderbilt University School of Medicine, and he read this paper at a meeting of the Iowa and Nebraska chapters of the American Academy of General Practice, in Omaha on June 20, 1957.

circulation in order to promote the excretion of urine. This was attempted by means of hypertonic solutions. A departure from this routine seems to be a sensible improvement and in line with normal physiology, but like anything else it can be overdone.

The first mention of giving sufficient water as an adjunct to the management of severe toxemia of pregnancy was by McPhail. DeLozier applied this to eclampsia patients on a large scale, and we are pleased with the results that he obtained. Although the patient has edema of the lower extremities that extends upward depending upon the severity of the condition, there is objective evidence that she is suffering from dehydration. One should notice that the skin and mucous membranes are dry, and that the respiratory secretions are thick and tenacious. The urine is highly concentrated, and its volume is markedly reduced. Hemoconcentration is shown by the elevation of the hematocrit values, and the increased clotting properties make aspiration of blood difficult. If the patient improves sufficiently to regain consciousness, her usual request is for water. It seems obvious that although the patient is waterlogged, the water is not in the vascular system and is not available to the kidneys. To give water seems more reasonable than it would be to attempt further to dehydrate the individual. Although subject to variations depending upon the condition of the patient, the general regimen at this time is as follows:

1. Glucose, 5 per cent in distilled water, 1,000 cc. intravenously every 6 hours through a Murphy drip at 60 drops per minute.
2. Elevation of the head of the bed 18 inches.
3. Initial intravenous sedation, sodium amytal, 0.24-0.48 Gm.
4. Subsequent sedation, sodium phenobarbital, 0.194 gr. intramuscularly every 6 hours.
5. Oxygen, 6 liters per minute by nasal catheter.
6. An indwelling catheter.
7. Measurements of fluid intake and of output of urine, with recordings every 6 hours.
8. Recording of blood pressure every 15-30 minutes.
9. Checking of blood sample for carbon dioxide combining power, nonprotein nitrogen, total and fractional proteins, packed corpuscular volume, type and cross-matching.
10. Digitalization when pulse exceeds 120 per minute, unless there is a temperature elevation to account for the excessive rapidity.
11. Vaginal examination and preparations for emptying the uterus by the most conservative means when the eclampsia has been well controlled, usually less than 48 hours after admission.
12. No ergotrate, stilbestrol or ice caps during or after delivery. Pitocin is used at cesarean section.
13. If sedation other than barbiturate is needed, magnesium sulfate, 50 per cent solution, may be administered in six 4.0 cc. doses intramuscularly, at intervals of four hours.
14. If sedation has not controlled the blood pressure in the first few hours, hypotensive drugs are indicated.

Discussion. For several years, regional nerve block was used to control the blood pressure, but it is now only occasionally employed in the most severe cases. The control of hypertension is very important, and the results achieved with hypotensive agents have been sufficiently encouraging to make us substitute them for regional nerve block.

Of course we do not want to drown the patient, and no such accident has occurred. The patient with severe eclampsia is similar in many respects to one with congestive heart failure. A patient severely ill with congestive heart failure is not kept in the supine position; rather, the head of the bed is elevated in order that some of the load may be taken from the heart and lungs. Eclamptic patients should be treated in the same way, so as to make pulmonary edema and cardiac dilatation less likely. At the beginning of treatment, the head of the bed should be elevated from 18 to 20 inches above the level of the pelvis. Inasmuch as there is approximately a 30 per cent increase in the cardiac output immediately following delivery, the elevation of the head of the bed or table is especially indicated at the time of delivery, and the obstetrician's failure to take this precaution may account for some of the deaths that have occurred in the first three postpartum days.

It is not my intention to include complete case reports in this discussion, but I shall mention two cases because they are different from the usual severe toxemia and because they illustrate the importance of individualization in the management of such patients.

Case 1 was a 24-year-old girl, G3, P2. She presented herself near term with a sudden gain in weight, persistent albuminuria of 4+, moderate hypertension and only slight edema. In general, the treatment consisted of hospitalization and sedation, together with fluid administration in keeping with the regimen that has been suggested in this paper. There was a decrease in blood pressure and in weight, and her urinary output increased until the third day of treatment. On the fourth day, she went into spontaneous labor and thereafter recovered.

Case 2 was a 42-year-old woman, G11, P9, A2. It is probable that this patient had preexisting chronic renal disease, with superimposed toxemia. She was admitted to the hospital in hard labor. Her blood pressure was 240/110 mm. Hg., and she had 3+ albuminuria and 4+ pedal edema. She was placed on sedation according to the usual routine, and she delivered a 5-lb. ¼-oz. male baby that survived. In the immediate postpartum period, her blood pressure rose to 280/160 mm. Hg., and her general condition worsened. It was obvious that sedation would not control the hyperten-

sion. She was therefore placed on a hypertensive drug regimen, starting with 9.5 cc. of Veriloid in divided doses over a period of 20 minutes. After that, an intravenous drip was started, using 8 cc. of Veriloid per liter in 5 per cent glucose in water. The rate of administration of the hypotensive drug ranged from 30 to 90 drops per minute, depending upon the reaction of the blood pressure. This therapy was safely discontinued after eight hours, when the blood pressure had stabilized at 180/120 mm. Hg. and the pulse rate had returned from 132 to 80 per minute.

What happens to the fetus? In considering the emergencies of obstetrics, we too often forget that the fetus must also be considered. The mortality of babies associated with toxemia in the mother is high. We once thought that the causes of fetal fatalities were ill-defined entities such as overwhelming toxemia. It is now recognized that there are two principal causes for infant deaths under such circumstances. The first is prematurity. Toxemia can develop early in the third trimester and grow severe at about the stage of viability of the fetus. If convulsions occur in the mother, labor is likely to start and either the baby is delivered spontaneously or emptying the uterus becomes reasonable as a means of saving the mother's life. Therefore, prematurity is important to fetal survival in such cases.

A smaller number of babies succumb to abruptio placentae, or in other words, they die from embarrassment or anoxia. We must therefore consider the fetus in relation to the termination of pregnancy, especially when induction of labor or elective cesarean section are distinct possibilities.

HEMORRHAGE

The principal causes of hemorrhage in the last trimester of pregnancy are placenta previa and abruptio placentae.

By *placenta previa* is meant the development of the placenta either partially or wholly within the dilating portion of the uterus. In central or complete placenta previa, the placenta completely covers the internal os. In partial placenta previa, the placenta does not completely cover the internal os, but overlaps it. In marginal or lateral placenta previa, the placenta is partly or entirely implanted in the lower uterine segment and does not extend to the border of the internal os.

Parity seems to predispose to the occurrence of placenta previa, for it is more common in multiparae. Essen Moller found that 19 per cent of cases occurred in primiparae, and 81 per cent in multiparae. Abnormalities of the placenta may favor the location of a portion in the lower uterine segment. Obviously, the larger the placenta, the greater the likelihood of a portion's extending into the lower uterine segment.

Bleeding is associated with placenta previa and is due to anatomical changes produced by the abnormal location. Normally, the placenta occupies the upper zone of the uterus and is unaffected by the changes which occur in the lower uterine segment or in the cervix during the last trimester of pregnancy. These changes consist of retraction and effacement of the cervix in an attempt to form the thinned-out lower uterine segment. When the placenta lies within the retraction zone or covers a portion of the os, some separation of its margin must occur. This separation usually takes place in the decidual layer, extending to the small vessels and causing painless bleeding. The abnormal implantation of the placenta in the lower uterine segment causes marked vascularity of the thin uterine wall.

In diagnosis, typical bleeding is an important factor. Abdominal examination may reveal that the presenting part is floating above the inlet of the pelvis. On vaginal examination, the soft bunch of placental tissue may be felt covering the os, or in the lower uterine segment. Palpation through the fornices of the vagina may reveal a bogginess of the lower uterine segment. The heart tones are usually present. The differential diagnosis can be made during this vaginal examination. That is to say, one can rule out the other conditions that are capable of causing painless hemorrhage late in pregnancy, and one can make sure that there isn't a ruptured varix in the vagina, a cervical polyp, some erosion of the cervix, a urethral polyp or premature labor.

Abruptio placentae must be carefully considered when one makes the diagnosis. This condition is usually manifested by bleeding associated with pain, tenderness, rigidity of the uterus, and either change or absence of fetal heart tones. Also, placental tissue is not palpable in the lower uterine segment.

In the treatment of placenta previa, prenatal care is of great importance. In any case of vaginal bleeding following conception, a careful blood study must be made, and if anemia is present, proper treatment must be instituted. Expectant treatment is rarely indicated, and then it should be begun only under hospital conditions where facilities for emergency measures are convenient. If possible, the patient should be hospitalized without examination, unless the initial bleeding is such as to warrant alarm. Routine treatment of hemorrhage, regardless of cause, is an important part of effective management. The patient is typed and cross-matched, and the Rh factor is determined. All preparations are made for the complications which may arise. The patient is examined vaginally. Rectal examinations should not be performed, for they do not afford necessary information, and they may disturb large clots and institute fresh hemorrhage. If placental tissue is palpated in the lower uterine segment or if it covers part of the os, the extent of encroachment of the placenta should be determined. If we find that the edge of the placenta is palpable high on the wall of the lower uterine segment, we are dealing with a low implantation of the placenta. This type causes considerable bleeding, but its treatment

is not difficult. Simple rupture of the membranes is usually sufficient. After the escape of the amniotic fluid, the presenting part may descend into the pelvis and may compress the placenta satisfactorily, thereby controlling the bleeding. The patient usually goes into labor, and delivery may be uneventful. When the edge of the placenta is palpable at the external os, we are dealing with a marginal placenta previa. Here again, simple rupture of the membranes may be all that is necessary for control of the bleeding.

We have almost completely given up the use of hydrostatic bags and Braxton Hicks' version in the treatment of placenta previa. Because of the location of the placenta, the lower uterine segment is so vascular and friable that these procedures have done more harm than good. Occasionally, if the head is deeply engaged, a Willet's forceps may be used.

If the os is completely covered by placenta, we are dealing with a total placenta previa. This is the most serious type, and immediate cesarean section offers the best prognosis for mother and child. The examination which must precede treatment occasionally provokes such an alarming hemorrhage that a temporary vaginal pack may be necessary as a means of controlling bleeding during the cesarean section. Operative manipulations must be carried out with gentleness, for there is danger of excessive trauma in cases of placenta previa. Treatment of the third stage is also important. Serious postpartum hemorrhage may result, and if the placenta does not separate quickly, it should be removed manually. Following removal of the placenta, if bleeding is still alarming, one should inspect the lower uterine segment for lacerations, and if none are found, the entire uterus and vagina should be carefully packed. Oxytocics are useful in controlling hemorrhage. A liberal blood transfusion should precede any type of treatment in a patient who has lost considerable blood.

What happens to the fetus? The fatality rate for babies associated with placenta previa in the mother is high. Bleeding in this condition usually begins in the seventh or eighth month of gestation. Frequently, termination of the pregnancy is mandatory in the interests of the mother, and prematurity of the infant can be expected to result quite frequently in its death. Occasionally, therefore, if bleeding has stopped after the mother's admission to the hospital, one may temporize before beginning definitive treatment, in order to give the baby a better chance for survival.

Abruptio placentae is a premature separation of a normally implanted placenta occurring during the last trimester of pregnancy, at or near term, or during the first or second stages of labor. Some alternative names for the condition are *concealed hemorrhage, ablatio placentae* and *premature separation of the placenta.* One recognizes two types: a complete detachment, and an incomplete or partial variety that progresses slowly. Holmes emphasized the importance and relative frequency of the condition, and gave it the name *ablatio placentae.* Later, DeLee applied the name *abruptio placentae.* Couvelaire showed its association with toxemias and described the condition as utero-placental apoplexy. The resulting hemorrhage from either complete or incomplete separation of the placenta may be external, in which case the blood separates the membranes from the wall of the uterus and escapes through the vagina, or concealed, in which case no vaginal bleeding occurs.

Partial separation occurs more frequently than does total separation. The incidence, as reported in the literature, has varied from place to place. One investigator reported one case in every 250 deliveries. In another reported series, partial separation was said to have occurred at the rate of one in 357 deliveries, and complete separation at the rate of one in 770. Abruptio placentae is the second most frequent cause of hemorrhage in the last trimester of pregnancy.

Many factors have been suggested as causes. Toxemia of pregnancy or nephritis can probably be blamed in most instances, but eclampsia, the most serious of the toxemias, is infrequently complicated by this condition. Traumatic factors such as short cords, manipulative procedures, abnormal uterine contractions or external trauma occasionally play a role.

The process begins with a hemorrhage into the decidua basalis. Bleeding causes a splitting of the decidua, and the development of a retroplacental hematoma. In some cases, the hematoma may resemble the placenta itself. If the process becomes limited, we have a partial separation, or it may continue and extend over the entire placenta. If it occurs during labor, it may occasion tumultuous uterine contractions. Retroplacental bleeding may be limited to the uterine cavity by the placenta, the membranes or the engaging part. It may then rupture through the membranes into the amniotic cavity and still be concealed. The uterus, tubes and ovaries, and often the broad ligaments present a bluish or purplish, mottled appearance. The characteristic discoloration extends over the entire peritoneum and, in fatal cases, often to the diaphragm. The serosal surface of the uterus is mottled, and the organ fails to contract properly. Microscopically, one finds extensive intramuscular hemorrhage which has dissociated the muscle bundles, thereby inhibiting their power of contraction. The process is most marked in the inner and outer layers of the uterine wall. The small blood vessels are found to be swollen. The epithelial cells are vacuolated, suggesting some lytic agent.

The mild type of partial separation usually occurs near the end of labor. Titanic contractions are usually associated with rigidity and tenderness of the uterus. There may be some external bleeding, or some small clots may be passed. The fetal heart tones show evidence of fetal asphyxia by irregularity in rhythm or a decrease in rate. The

labor usually terminates rapidly. A sudden change in the character of the labor, the beginning of hemorrhage, some evidence of fetal distress and the discovery of old blood clots in the uterus partially attached to the placenta are characteristic of the condition. Cases of complete abruptio placentae—the grave ones—occur at any time during the last trimester of pregnancy. The onset of abdominal pain may be sudden or gradual, and the pain becomes severe. No normal uterine motility is present, but the uterus remains in a constant state of tetany. The degree of discomfort and tenderness associated with a lack of normal uterine activity is an index to the gravity of the condition. The abdomen and uterus are usually tense, very tender on palpation and rather woody. Rarely, the uterine outline may be irregular because the retroplacental hematoma has caused an outward bulging of the placental site. Visible hemorrhage in varying amounts is often present. A serous vaginal discharge usually indicates the presence of clots in the uterus. Shock develops early in cases with utero-placental apoplexy, but it is important to remember that patients do not die of shock, but of hemorrhage.

Diagnosis of partial abruptio placentae is made on the sudden change in the character of the labor and on the appearance of localized tenderness, external hemorrhage and signs of fetal asphyxia. Complete separation can be diagnosed by the occurrence of external hemorrhage in the last trimester of pregnancy, associated with abdominal pain of moderate or extreme severity. The picture of hemorrhage develops rapidly. The blood pressure and the degree of anemia are important, and a rapidly falling blood pressure is a serious sign. Shock in such cases is out of proportion to the amount of known hemorrhage. Marked uterine tenderness extending laterally over the regions of the broad ligaments may signify utero-placental apoplexy. The baby is always dead in such cases.

As in placenta previa, treatment must be individualized. Partial separation most often occurs in labor. The labor usually is accompanied by very strong uterine contractions. These cases are treated conservatively, and they usually deliver spontaneously. One should follow the labor carefully, noting the amount of bleeding, the character of the pain, the blood pressure and the fetal heart tones. If the membranes are intact, they should be ruptured to make internal bleeding less likely and to facilitate labor. Severe pains may be temporized by the administration of an anesthetic. Labor should be terminated as soon as possible by the most conservative means. One should not hesitate to terminate the third stage promptly, through manual removal of the placenta, if hemorrhage is alarming. In a complete separation, if the patient is in labor and is making normal progress, conservative measures are indicated. Rupture of the membranes will hasten the labor. As soon as there is sufficient dilatation, the labor may be terminated through the use of forceps. In the patient who is not in labor or whose labor is not progressing satisfactorily and who is in danger of uteroplacental apoplexy, abdominal delivery offers the best results, provided that proper facilities are at hand. A rapid cesarean section—preferably of the low-cervical type—terminates labor rapidly and satisfactorily. The advisability of hysterectomy will depend upon the ability of the uterine musculature to contract and to control the bleeding. It is not always essential to do a hysterectomy in cases of uteroplacental apoplexy, but it is often necessary, and if there is any doubt as to the ability of the uterus to remain contracted, it had better be removed. Timely treatment is the answer to this problem. To wait until the patient is exsanguinated and then decide on radical surgery is unfair both to the patient and to the method of treatment.

One of our recent patients constitutes an excellent example of this condition. This 24-year-old, white female, G3, P2, was admitted with a chief complaint of severe abdominal pain. Her first pregnancy had terminated in an uneventful spontaneous delivery. Her second pregnancy had been terminated by cesarean section because of complete abruptio placentae, and in this third pregnancy her course had been uneventful until shortly before her admission to the hospital in shock. Physical examination showed a pulse of 120 and a blood pressure of 90/50 mm. Hg. The skin was pale and cold, and the patient was in acute distress. The uterus was enlarged beyond what would be expected at full term, and was very tender to palpation. The uterine contractions were characterized by a lack of relaxation between the pains. Fibrinogen concentration of the plasma was zero. The patient was given 1,500 cc. of whole blood, and 4 Gm. of fibrinogen. At the end of two hours, the blood pressure was 110/70, and the pulse was 84. Since there was no progress in the labor, a repeat low-cervical cesarean section was done to deliver a dead baby. During the procedure, the patient received 1,000 cc. of whole blood, and an additional 2 Gm. of fibrinogen. As a preparation for delivery, during the operative procedure and in the immediate postpartum course, she received 4,500 cc. of transfused blood, and 7.5 Gm. of fibrinogen. The immediate postpartum course was uneventful. However, eleven weeks later, she was hospitalized because of homologous serum jaundice. Subsequently, she made a good recovery from it.

What happens to the fetus? Abruptio placentae is attended by a high mortality rate of babies. Obviously, all complete abruptio placentae must have been incomplete at the beginning of the development of the condition. Nevertheless, two types are seen clinically, and the survival of the fetus seems to depend on the type. Incomplete abruptio placentae occurs during labor, and is attended by severe contractions of the uterus, usually resulting in the prompt delivery of a live and only slightly asphyxiated baby. However, when the diagnosis is clear and when spontaneous delivery does not

take place, a forceps delivery from below or a cesarean section may be indicated, depending upon the dilatation of the cervix. Complete abruptio placentae has usually occurred before the patient is admitted to the hospital, and the baby has already died from anoxia.

EARLY AND LATE ECTOPIC PREGNANCY

Hemorrhage during pregnancy or labor is always pathologic. A small percentage of women, it is true, menstruate for one or two months after the beginning of pregnancy, but usually not after the sixteenth week, when the amniotic sac completely fills the uterine cavity. One must distinguish between menstruation and hemorrhage.

Early Ectopic Pregnancy. The term *ectopic pregnancy* signifies a pregnancy in any location outside the uterine cavity. By *extrauterine* pregnancy is meant a pregnancy occurring wholly outside the uterus. There are three varieties of tubal (fallopian) pregnancy: interstitial, isthmical and ampullar. In ovarian pregnancy, the ovum is fertilized in the graafian follicle and subsequently develops in the ovary. Abdominal pregnancy is almost always secondary to tubal or ovarian pregnancy. Ectopic pregnancy may occur at any time during the childbearing period, but 70 per cent occur in women between the ages of 24 and 33 years. The causes of tubal pregnancy are varied and include mechanical interference with the passage of the fertilized ovum down the tube to the uterine cavity; either pressure on the tubal lumen from without, or obstruction of the lumen from within; and also anomalies of the tubal lumen. Pelvic inflammatory conditions, recent or remote, are probably the most frequent cause. External migration of the ovum is probably quite rare.

The diagnosis is infrequently made before rupture. A history of irregular bleeding early in pregnancy makes one suspect threatened abortion or ectopic pregnancy. There is usually a tender mass located on one side of the uterus, in addition to cramp-like pain, fever and leukocytosis. Following rupture, the history that one gathers usually includes irregular bleeding early in pregnancy, and a sudden sharp pain followed by collapse. A bluish discoloration in the region of the umbilicus, according to Cullen, is helpful in diagnosis, but this sign is not constant.

It is of the greatest importance that one differentiate between abortion and ectopic pregnancy in making his diagnosis. Abortion occurs most frequently between the eighth and twelfth weeks of gestation, whereas tubal pregnancy may be encountered from the fourth to the sixth week. The bleeding in tubal pregnancy is first uterine in origin—the result of decidual separation, which usually indicates death of the ovum or fetus. The bleeding is often chocolate colored and in most instances is moderate in amount. Decidual fragments or a complete decidual cast may be passed. In uterine abortion, the bleeding is frequently quite profuse and is bright red in color. All bleeding is external, and therefore the amount of blood loss is a fair index of the amount of blood that the circulation has lost. In tubal gestation, the pain is generally stabbing in character and is often referred to the affected side, but is rarely colicky. A feeling of faintness or vomiting as a result of peritoneal irritation may be associated with the pain. Cramp-like rhythmical pains resembling those of labor are characteristic of abortion.

In cases of ectopic pregnancy, an adnexal mass can often be palpated on one side of the uterus. It is semifluctuant and boggy. In the event of free bleeding in the cul-de-sac, a soft, boggy mass may be palpated, and it is usually tender. The uterus will be somewhat enlarged and definitely softened. In uterine abortion, the size of the uterus will increase to correspond to the period of amenorrhea, and the adnexal region will in most instances, be found negative to palpation. The cervical os is partially dilated. More definite diagnosis may be established by examination of the uterine contents. In cases of intrauterine gestation, it would reveal chorionic villi and decidua, but in cases of ectopic pregnancy, only decidua would be found. A frequent aid in diagnosis is puncture of the cul-de-sac or colpotomy. A pregnancy test is diagnostically valuable only when it is positive. A negative test does not rule out the possibility of an ectopic gestation. Following the death of the ovum and the separation of chorionic tissue from the tubal wall, the hormonal test becomes negative. A positive test, however, does not eliminate the possibility of an intrauterine gestation.

Late Ectopic Pregnancy. A few early ectopic pregnancies are undetected in the first trimester, and some of these become secondary abdominal pregnancies. In other words, they are late ectopic pregnancies. Abdominal pregnancy results from a gradual extension of the fetal sac, either from the fimbriated extremity of the tube or from a rupture of the tubal wall, in which case the rupture is so gradual that the placental attachment is not disturbed.

The diagnosis of late ectopic or abdominal pregnancy is made on a history of an acute painful episode which corresponds to the tubal rupture or abortion prior to secondary implantation. An enlarged, softened uterus such as is found in ectopic pregnancy and a mass of varying consistency formed by the extrauterine gestation may be revealed on pelvic examination. Hormonal tests for pregnancy are positive. The small parts of the fetus are unusually easy to palpate in the last trimester. The incidence of abnormal positions and presentations is increased in abdominal pregnancy. Transverse presentations are especially frequent. Near the expected date of delivery, the patient may go into pseudolabor. Pains of increasing intensity may be experienced at regular intervals,

although the reason is not evident, and these pains may continue for variable lengths of time. If the condition is not properly diagnosed, the pains will stop and the fetus may die.

The x-ray evidence consists of (1) the absence of a uterine shadow when one uses a soft-tissue technic without an opaque medium; (2) an unusually high position of the fetus in the abdomen; (3) an abnormal position of the fetus, particularly the transverse; (4) a lateral view of the abdomen showing the fetal parts just below the abdominal wall. Some advocate the injection of an opaque medium into the uterine cavity, but such a procedure is not without danger.

The successful management of early ectopic pregnancy is based upon accurate diagnosis and—after replacement of blood loss—prompt surgical treatment. We have made use of the usual signs and symptoms of early ectopic pregnancy and the well-known aspiration of free blood from the cul-de-sac as an aid to diagnosis. The successful management of a large ectopic or abdominal pregnancy depends upon accurate diagnosis as aided by roentgen studies, a decision to undertake laparotomy, proper preparation of the patient for the operation, and the treatment of the placenta. The last of these is of much importance, and it is our rule to leave the placenta undisturbed and without drainage or marsupialization, unless there is an obvious infection or unless it is clear that the placenta can be easily separated and extracted without serious blood loss.

What happens to the fetus? In early ectopic pregnancy, the embryo or fetus has frequently died at the time that external bleeding became apparent. Otherwise, the majority die at the time of rupture of the tube or tubal abortion. The few remaining are removed at the time of surgical removal of the tube, in the interests of the mother. In late ectopic or abdominal pregnancy, fetal anomalies are more common than usual because of the unusual position of the baby in the abdominal cavity, and because of the effects of pressure. The best policy is to remove the baby as soon as the diagnosis has been made. We have seen instances, however, in which there were no symptoms of distress on the part of the mother when the diagnosis of abdominal pregnancy was made, and the fetus had not reached the point of viability. In such cases, therefore, it was permissable to temporize for a few days, or until intra-abdominal complications made delivery mandatory.

Annual Meeting, Iowa Heart Association

Iowa physicians, along with Dr. Robert W. Wilkins, of Boston, president of the American Heart Association, will play prominent parts in the program of the Annual Meeting of the Iowa Heart Association, at the Hotel Fort Des Moines, in Des Moines, May 21 and 22.

At the morning session on May 21 (Wednesday), Dr. L. W. Swanson, of Mason City, will preside. Dr. E. O. Theilen, an assistant professor of internal medicine at S.U.I., will speak on "The Nature of Congenital Heart Disease," and Dr. W. H. Myerly, of Des Moines, will discuss "Congenital Heart Surgery—Ten Years of Progress."

At the annual Heart Fund luncheon, at noon on that first day, announcement will be made of the 10 top counties in last February's fund campaign, and awards will be presented.

At the Wednesday afternoon session, Dr. Galen Boller, of Waterloo, will preside. Dr. John R. Kersten, of Fort Dodge, will speak on "Nature of the Rheumatic Fever Problem," Dr. Harold Margulies, of Des Moines, will discuss "Surgery and Rheumatic Heart Disease," Dr. William B. Anderson, an assistant professor of pediatrics at S.U.I., will talk on "Prevention of Strep Infection and Rheumatic Fever," and Dr. W. H. Griffith, of Clinton, will outline "A Community Program in Rheumatic Fever Prevention."

Dr. Wilkins, who is unusually active as president of the American Heart Association, will be the principal speaker at the banquet on Wednesday evening. He is a professor of medicine at Boston University, and his affiliation with the heart program, which dates back to 1948, has not been confined to organizational affairs. He has engaged in medical activities in this field, and during 1949-1950 he served as vice-chairman of the American Federation for High Blood Pressure.

The annual meeting of the board of directors of the Iowa Heart Association will be held on the morning of May 22 (Thursday), and the sessions will terminate with a noon luncheon and combined annual meeting of members of the organization.

All Iowa physicians are invited to attend.

Differential Diagnosis of Macular Lesions

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One of the most interesting aspects of ophthalmology is the study of macular lesions. In many eyes it is possible to make an etiologic diagnosis by observation of the macular area alone, but in other eyes a complete study is necessary before one can be reasonably certain of the diagnosis. The purpose of this paper is to review various types of macular lesions with what I believe are important clinical features that aid the physician in making differential diagnosis.

CHOROIDAL RUPTURE

The history of injury to the involved eye is important in the making of a diagnosis of choroidal rupture. In many eyes, the choroidal rupture will pass through or adjacent to the macula. In the acute phase, the rupture itself may be hidden by hemorrhage, and early diagnosis is consequently impossible. The characteristic finding in choroidal rupture is the crescent-shaped lesion lying deep to the retina. The borders may be pigmented in the healed lesion, or blurred by hemorrhage or edema in the acute phase. The crescent lesion is almost always vertical through the macula. The degree of visual impairment may not be related to the extent of the rupture, and hence it is impossible to predict the patient's vision from the appearance of the defect. In severe cases where there was a large hemorrhage in the acute phase, there may be an irregular elevated mass somewhere along the course of the rupture.

TUMORS

One of the most difficult and important macular lesions to diagnose is tumor. In addition to the problem of the diagnosis of tumor, there is the important question of whether it is malignant or not. Unfortunately, a malignant melanoma may not be distinguished from a benign one until after enucleation and microscopic section have taken place. In malignant melanoma of the macular area, there is usually a definite elevation, with some involvement of the retina. The retinal surface, when studied with the Hruby lens, may show fine brown streaks in the deep retinal layers. Another important feature is a flat retinal separation that frequently occurs early in the course of the tumor. Hemorrhage is unusual and, if present, is usually located on the surface of the lesion rather than around the edge as in disciform degeneration of the macula. The borders of the lesion itself are usually smooth (if one excludes those cases with retinal separation at the edge). If the lesion is flat, with irregular borders and no retinal separation, and if it does not invade the retina, it is probably benign and can be observed for a period of time. A secondary feature of considerable importance is the presence of a scotoma related to the lesion. If there is a scotoma, the differential diagnosis must distinguish between disciform degeneration and malignant melanoma, and not nevus of the choroid.

Metastatic carcinoma of the choroid is frequently present in the macular area. The lesion has a mottled-yellow appearance with slight elevations. There may be serous retinal separation. The history of a previous malignancy is important, but the characteristic lesion in the absence of a known neoplasm does not rule out metastatic carcinoma.

CHORIORETINITIS

The typical acute chorioretinitis with white, edematous retina and vitreous opacities is easily recognized, but the so-called subacute chorioretinitis is difficult to prove. In many instances, it is impossible to be certain whether a lesion is degenerative or is a "low grade" inflammation. Probably the two most valuable signs are the appearance of the vitreous adjacent to the retina and the appearance of the retina itself. If there are no fine vitreous opacities and no retinal infiltration, I feel that inflammation is unlikely. If old, healed chorioretinal lesions are present in other areas of the retina, one must consider the possibility of inflammation. Hemorrhage on the surface of the lesion suggests inflammation, whereas hemorrhage at the edge suggests a degenerative lesion. Bilateral macular lesions are most likely to have a degenerative rather than an inflammatory basis.

In the fibrotic stage of chorioretinitis, it is almost impossible to make certain that one does not have a healed vascular lesion. The fibrotic stage of vascular macular lesions and chorioretinitis appear identical.

DISCIFORM DEGENERATION OF THE MACULA

The diagnosis of acute disciform degeneration of the macula is rarely difficult. Of considerable importance is the history of a sudden visual loss. Examination of the macular area reveals a discrete, elevated, slate-colored mass usually with a halo (complete or partial) of deep hemorrhage.

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The size and position of the lesions are quite variable, but in the majority of eyes the macular area itself is involved. Retinal separation at the margin of the lesion rarely occurs. Edema of the overlying retina is rarely present. During the late stages, the lesions may appear more like inflammatory processes. In the fibrotic stage, the lesion is usually indistinguishable from an inflammatory process. In the late stages, the appearance of the macula of the fellow eye is of considerable assistance. If the uninvolved macular area has drüsen, pigment atrophy or proliferation, disciform degeneration is the most probable diagnosis.

SENILE MACULAR DEGENERATION

Senile macular degeneration may be characterized by either of two general appearances: (1) the disappearance of the pigment epithelium, or (2) pigment migration and/or proliferation. It is interesting that in patients in whom both eyes are involved, the process is the same in each eye. It is also interesting that in the heredity type, the appearance of the process is usually the same in all the involved members of the family. In almost all patients, both eyes are involved to some degree, although the process may be considerably more advanced in one of the eyes.

The appearance of the macular area when there is an atrophy of the pigment epithelium is that of an irregular scalloped patch, with the choroid easily visible. The choroidal vessels are less numerous and may be sclerosed. There is no evidence of the "missing" pigment in either the retina or the choroid.

Senile macular degeneration may be characterized by pigment migration and/or proliferation. In these patients the process is bilateral, but is usually more advanced in one eye. The amount of pigment present is extremely variable, but it is in clumps wherever it is located. The margins of the lesions are not sharply defined as is the case in pigment atrophy. The underlying choroid may not be visible and, if visible, it may show minimal changes. In either type of process, the changes are limited to the macular and paramacular area.

CYSTIC MACULAR DEGENERATION

Cystic macular degeneration is, for the most part, limited to the retina and not to the choroid. The cause may be vascular sclerosis, trauma, heredity or toxicity. In most patients there is a small round spot in the center of the macula with a thin white ring of retinal edema around its border. There may be a thin membrane over the top, producing a true cyst, but in some cases the membrane has been ruptured and a hole has been left. In the resolving stage, fine white dots of edema residue are to be found on the deep surface. The size of the lesion is usually constant from the early stage. In some patients there are multiple small cysts. The borders of this type of lesion are poorly defined, and the appearance is like that of a microscopic honeycomb. If the process is hereditary, vascular or toxic, there is considerable likelihood of bilaterality within a few years, but following trauma or retinal separation, the process is limited to one eye.

MACULAR EDEMA

There are three primary types of macular edema: (1) secondary to trauma, (2) secondary to central serous retinopathy, retinitis centralis annularis, idiopathic flat detachment of the macula or central angiospastic retinopathy, and (3) secondary to papilledema, iridocyclitis or general disease. The macular edema secondary to trauma has a soft, white appearance, with irregular, poorly-defined borders. There may be hemorrhage associated with the edema. The characteristic recurrent macular edema has a sharply-defined border, with a halo of light reflex around the edge of the edema. The lesion is round, with mild to moderate elevation. The choroid may be visible through the edematous retina. In the resolving stage, small white spots of edema residue will be present for months or years, and the pigment epithelium usually has a dusty appearance. Frequently, there is a permanent round halo reflex around the macular area constituting the "high water mark" of the edema. One of the most valuable clinical features is a positive scotoma, usually yellow or blue-green in color.

MACULAR HEMORRHAGE

Hemorrhage in the macular area may be a part of any one of several general processes. The hemorrhage may be pre-retinal, intra-retinal or sub-retinal. Pre-retinal hemorrhages are usually large, with a flat upper border that may have serum above the dependent red blood cells. The hemorrhage may break free into the vitreous in a local area or throughout. Intra-retinal hemorrhages may be small and round, or they may be flame-shaped, depending upon the retinal layer that is involved. Sub-retinal hemorrhage may elevate the retina, but it is usually associated with an elevated mass of choroidal hemorrhage. Whenever hemorrhage alone is noted, one must consider diabetes, vascular sclerosis or blood disorders. A complete medical examination is indicated as a means of determining the etiology.

HEREDITARY MACULAR LESIONS

There are three quite distinct sorts of hereditary macular lesions: (1) heredo-macular degeneration, (2) maculo-cerebral degeneration, and (3) Doyne's choroiditis. Heredo-macular degeneration produces the appearance of senile macular degeneration. The significant clinical feature is its inception during the patient's early teens. Maculo-cerebral degeneration occurs very early in life—in infants from one to three years of age. It pro-

duces the typical white ring around the macula, with the central choroidal area appearing red. The eye findings may be the first clinical evidence of the disease, but as a rule the central nervous system symptoms have been well established before the eyes are examined. Doyne's choroiditis is characterized by large drüsen in the macular areas. Between the large drüsen, there may be granules of pigment epithelium. The patient's visual acuity is not affected in the early stage, but later in the process it is usually impaired.

SOLAR RETINITIS

Solar retinitis is probably missed in a majority of the patients who are afflicted with it. In any patient with slight visual reduction and a small scotoma, one must consider this diagnosis. Careful examination of the macular area reveals a small crescent of pigment, usually adjacent to the macular area in the vertical axis. The pigment is deep, and may be fine or heavy. Larger lesions with a punched-out appearance may have been produced by solar burns.

CONCLUSION

There are numerous causes of macular lesions, some of which produce a characteristic appearance. However, regardless of the fact that tests are available, one cannot make a certain diagnosis in a significant percentage of patients, especially in those with healed fibrotic lesions.

Intentional Replacement of Bacteria Following Antibiotic Therapy

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FORT DODGE

ALTHOUGH IT IS not a recently-discovered disease entity, pseudomembranous enterocolitis has attracted renewed interest in recent years because of its association with the clinical use of broad-spectrum antibiotic agents. Fulminant and often fatal diarrhea associated with a variety of etiologic agents has been described throughout the past century. In 1954, Pettet and others described 94 fatal cases in postoperative patients observed at the Mayo Clinic between 1925 and 1952.[1] Fewer than half of those patients had received antibiotics prior to the onset of the disease. There was no significant change in the over-all incidence of the process at the Mayo Clinic after the coming of the antibiotic era, but it seems, nonetheless, that the long-familiar entity is now being offered a new opportunity to attack.

ENTEROCOLITIS FOLLOWING THE USE OF ANTIBIOTICS

Dearing and Heilman, also of the Mayo Clinic, described their observations on 44 cases of severe enterocolitis complicating antibiotic therapy in medical and surgical patients in 1953.[2] Forty of those patients had received Aureomycin or Terramycin. In many of them it was possible to demonstrate Micrococci in the stool, sometimes in pure culture. In 1955, Kapp reported seven cases, with six deaths.[3] In 1956 Newman reported 12 cases, with 10 fatalities.[4] He concluded that the process is the result of a variety of factors, and that antibiotics play a significant role in many cases. It is probable that enterocolitis following antibiotic therapy is one variety of the several intestinal disturbances which are collectively termed "pseudomembranous enterocolitis." All share certain clinical and pathologic features. In general, the intestine in fatal cases displays degrees of mucosal pathology varying from surface inflammation to extensive mucosal ulceration involving a small or large segment of bowel. Clinically, the mucosal inflammation is accompanied by a massive outpouring of fluid into the intestinal lumen. This outpouring causes distention and, in most cases, diarrhea. The diarrhea may be explosive and violent, but there may be none at all in cases in which the bowel fails to evacuate the massive transudate. In such cases there may be only an extensive abdominal distention. In untreated cases, the patient may quickly become moribund, with severe dehydration, hemoconcentration and shock. The stools may be of "rice water" consistency, or they may consist of white or blood-tinged mucoid curds suspended in serous fluid.

Factors which may contribute to the development of severe enterocolitis include preexisting partial bowel obstruction, shock, suppression of normal bacterial flora by antibiotics, toxin production by antibiotic-resistant Micrococci (Staphylococci), chemical irritants and "unknown factors." Broad-spectrum antibiotics may be chemically irritating to the bowel. They may also act

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by upsetting normal flora, and by permitting the growth of enterotoxin-producing organisms. Surgalla and Dack, in 1955, reported finding enterotoxin-producing Micrococci in 30 of 32 patients who developed enteritis after antibiotic therapy.[5] It is known that Micrococci may produce a diarrhea even from sites of infection elsewhere than in the intestinal tract.

Treatment of severe enterocolitis involves general supportive measures, vigorously applied. These include rapid replacement of the massive fluid and electrolyte losses, blood transfusions, and specific therapy with appropriate antibiotics in those cases associated with enterotoxin-producing Micrococci. These organisms may be sensitive to erythromycin, Chloromycetin and other less commonly used antibiotics. Unfortunately, strains of Micrococci are now appearing which are resistant to all of the generally available agents.

THE TIME MAY HAVE COME FOR A NEW APPROACH

Clinical problems involving antibiotic-resistant organisms are becoming more and more frequent, and extensive efforts are being exerted to discover more and more "new" antibiotic agents so that control can be maintained over the emerging resistant strains. But perhaps the time has come for us to redirect our efforts and to renew our exploration of potential methods for controlling the bacterial population of our bodies by more direct means. For it is within the realm of possibility that man can develop effective methods for inoculating and maintaining in his body and in his environment only such strains of organisms as are relatively harmless and which, when necessary, can be destroyed by antibacterial agents. Much remains to be learned of the complex interrelationships which ordinarily enable the body to support the "normal" population of microorganisms and to repel invasions by aggressive pathogens.

In northwestern Iowa there is a field of virgin sod known as the Kalsow Prairie. Although it is surrounded on all sides by cultivated fields and roadside weed patches, the Kalsow Prairie preserves unchanged a collection of the native grasses of the plains, just as they have existed for thousands of years, from a time long antedating the advent of civilization and the plow.

It is highly significant that common weeds do not grow in the Kalsow Prairie, although they flourish all about its perimeter. The conclusion seems obvious: the "normal" grasses and other plants of the Prairie are so perfectly adapted to local growth conditions that intruding alien plant seeds fail to gain a foothold. In adjacent fields, repeatedly disturbed by cultivation, common weeds abound. In this observation may lie a lesson for human bacteriologists. Perhaps the time has come for us to renew our studies of normal human microbial flora and the manner in which it may shield our bodies from invasion by dangerous or harmful organisms.

THE BODY'S HITHERTO UNAPPRECIATED ALLIES

Surprisingly enough, little is known of the dynamic equilibrium which is maintained in our bodies by these unseen guests. Each of us harbors a population of bacteria numbering well into the trillions. They take up residence shortly after our arrival on the earthly scene, and they quickly populate our internal and external epithelial surfaces, remaining with us through thick and thin, until death closes down the boarding house and they, in turn, are forced either to die or to depart.

Since they are for the most part rather quiet and law-abiding tenants, we have little reason for informing ourselves about their day-to-day activities. Undoubtedly, life is a complicated struggle for each of these unnumbered entities. Existence is compressed into minutes, complete with struggles for food, battles against hostile environment and continuous combat with millions of competing organisms in the local microcosm. In 70 years, the resident bacterial population will evolve through approximately 1,000,000 successive lifetimes, while the host lives only one. In that period, the host and his microbial entourage will have chance encounters with countless hordes of alien, and sometimes dangerous, invading organisms, the great majority of which will be repulsed through the cooperative defensive efforts of the human being and his attendant microbes. From time to time, a few alien strains will become adapted to the host and the previously-resident population, and become "naturalized citizens," so to speak.

Let us consider, for a moment, the normal flora of the human intestine. The upper small bowel and the stomach appear to be relatively sterile, unless abnormal gastric conditions permit ingested organisms to pass through alive. In the lower ileum, however, a variety of organisms of the coliform and clostridial groups may be found. And in the colon a cosmopolitan population of trillions of organisms compete with one another for the unabsorbed residue of our daily bread. Over 50 major groups of bacteria have been identified in the human colon, and it is likely that each bacterium in turn harbors latent or masked viral parasites (phage and colicine bodies) with which it is able to wage biologic warfare on its neighbors. The struggle for survival between normal bacterial strains in the human colon is a ceaseless duel to the death.

Each strain possesses its own unique chemical-warfare arsenal of offensive and defensive agents. In the late nineteenth century, it was determined that pseudomonas organisms produce at least four different substances, including even pyocyanase. These are highly effective poisons in trace concentrations against many gram positive and gram negative bacteria. All surgeons have ob-

served the familiar situation in which pyocyanic organisms overgrow granulating burns, "displacing" other bacteria from the tissue surface. Certain strains of E. coli are known to be capable of overgrowing and replacing the organisms of diphtheria, paratyphoid, bacillary dysentery, and many Streptococci and Micrococci *in vitro,* and to lesser degree *in vivo.* Many general and specific bacterial antagonisms have been demonstrated in the laboratory and are undoubtedly active in the bodies of human hosts.[7, 8, 9, 10, 11, 12, 13]

THESE ALLIES OCCASIONALLY ARE DECIMATED

The organisms of infectious diseases must be uniquely adapted to the environment provided by a susceptible host, if they are to intrude upon an already crowded scene and to displace or bypass the established population. If the established bacterial population has been weakened, however, or if its internal equilibrium has recently been disturbed, the invader may be aided tremendously in its aggression. It has been demonstrated recently that small doses of streptomycin administered to mice cause a brief but thousandfold increase in their susceptibility to inoculated Salmonella organisms. And just as certain pathogenic organisms are known to elaborate penicillinase, enabling them to survive in the presence of effective concentrations of that agent, it is probable that organisms in the human body are constantly undergoing adaptive modifications which enable them to elaborate counter-enzymes for many of the substances which tend to destroy them.

From these and similar studies in the past 100 years emerges a general outline of the interrelationships and checks and balances which are maintained in "normal microbial flora." We should bear it in mind when we treat bacterial disease.

Every person carries throughout his life a protective mantle of essentially harmless microorganisms. These, collectively, make up his "normal flora." By utilizing available nutrients and by establishing competitive interrelationships among themselves and their own submicroscopic pests and poisons, they make difficult or impossible the intrusion of many hostile or pathogenic microorganisms.

When such a person is given a potent antibiotic agent for any reason, the effects upon his normal bacterial population may be likened to a devastating plague. All susceptible organisms are quickly destroyed, and the gaps thus created in the bacterial ranks cause chain-reaction disturbances throughout the entire remaining population. In the intestinal tract, a temporary bacterial "vacuum" is created, with nutrient substances briefly available in abundance. Surviving or accidentally inoculated resistant strains quickly multiply to fill the void. A new dynamic equilibrium is established, with a new cast of characters on the scene. The entire process of devastation and reappearance may be quite rapid.[14] In the case of broad-spectrum antibiotic preparation of the large bowel for surgery, there may be a transitory reduction in total bacterial numbers for a few days, and within a week thereafter a repopulation may occur so that the numbers equal or even exceed pre-treatment levels, even though the antibiotic has been continued.

The reestablished flora is composed of descendants of selected members of the original population which have possessed or quickly developed resistance, or of new strains of organisms introduced during the period of depopulation, from resistant strains in the environment. It is known that environmental strains of microorganisms quickly inhabit the sterile bodies of newborn infants. It is not at all surprising, then, that resistant strains in the hospital may quickly occupy the bodies of patients from whom sensitive strains of organisms have been removed through the use of antibiotic agents.

THERE ARE PRECEDENTS FOR REPLACING BACTERIA

A few scattered reports have been published in recent years concerning efforts to control the repopulation of bacteria in patients who have undergone treatment with antibiotics. Twenty-five years ago, an extensive mass of literature was accumulated dealing with efforts to introduce into the human colon a "fermentative" flora as a treatment for a wide variety of intestinal disorders. Considerable success in altering the flora could be achieved, although in some cases it was necessary to provide large quantities of specific foodstuffs, such as lactose, to maintain the fermentative strains. In some cases, repeated oral administration of cultures of Lactobacillus acidophilus was necessary. In a few resistant cases, inoculation directly into the colon by enema was needed to establish the desired organism. With the coming of antibiotics, interest in this phase of manipulative bacteriology declined.

In more recent times, Huber has reported the successful reinoculation of cultivated strains of coliform organisms in children in whom the normal flora had been destroyed by antibiotic treatments.

CASE REPORT

In dealing with a severe case of micrococcal enterocolitis in the past year, I was prompted to attempt the reintroduction of not just a few selected strains of coliform organisms, but the complete and balanced microbial population contained in the stool of a normal adult human being.

A 62-year-old, short, rather obese woman was found to have a partially obstructing carcinoma low in the sigmoid colon. She was given 250 mg. of neomycin at four-hour intervals, together with saline laxatives for 48 hours before surgical ex-

cision of the primary tumor and end-to-end anastomosis. Postoperatively, she was given parenteral penicillin, dihydrostreptomycin and Aureomycin in average doses for three days. Antibiotics and Wangensteen suction were then discontinued, and oral feedings were resumed.

The patient did well until the sixth postoperative day, when she complained of low abdominal pain and passed several loose stools. On the seventh day, she developed an explosive diarrhea, intense low pelvic pain, distention and shock. A tentative diagnosis of micrococcal enterocolitis was made, and smears and cultures of the stool were taken. Aggressive treatment with oral Mysteclin and intravenous erythromycin was begun immediately. Her distention increased, and gastric suction was consequently resumed. Despite the administration of large amounts of parenteral fluids, she developed shock and appeared on the verge of death on the eighth postoperative day. At one time, the pulse and blood pressure could not be obtained, and there was continuous rectal seepage of blood-tinged "rice-water" fluid.

Large amounts of blood and mixed electrolyte fluid, together with hydrocortisone, were administered continuously by venesection. She was given as much as 7,000 cc. of parenteral fluid and blood daily. Her blood pressure was restored to normal levels on the second day of this disturbance, but the diarrhea persisted. Large doses of parenteral Chloromycetin were instituted on the third day of diarrhea. The stool cultures were not yet revealing. Meanwhile, the severe pelvic pain and moderate fever were thought suggestive of pelvic abscess. Drainage of the posterior cul-de-sac was accomplished under anesthesia, but no pus was encountered.

On the fifth day of the complicating illness, the patient continued to have liquid stools, a poor clinical appearance and low abdominal pain. Staphylococci were now demonstrated on direct smear of the stool. It was felt that the causative organism might be resistant to the antibiotics that were being employed.

Therefore, on the morning of the eleventh postoperative day, and again on the twelfth day, in an endeavor to restore a microbial flora to the colon, the patient was given by enema an aqueous suspension of normal fecal material from another patient recently admitted to the hospital.

Within six hours of the first inoculation, the patient's stools began to lose their liquid character and to develop more normal color and consistency.

The Micrococci isolated by culture previously were found to be moderately sensitive to Chloromycetin and to be resistant to substantially all the other tested antibiotics, including erythromycin and Magnamycin.

Improvement continued except for a mild exacerbation of diarrhea on the sixteenth postoperative day, and bilateral thrombophlebitis of the legs developing on the seventeeth postoperative day and requiring anticoagulant treatment.

The patient was eventually discharged in good condition on the twenty-fifth day after surgery.

EVALUATION

The role played by the mixed bacterial population reinoculated in this patient on the fifth and sixth days of her diarrhea is problematical. Only Chloromycetin-resistant organisms could have survived. Improvement was at least coincident with the reinoculation, and had not been clearly apparent before, even though an appropriate antibiotic agent (Chloromycetin) had been administered in large parenteral doses (0.5 Gm. every eight hours) for 48 hours previously.

It is felt that this issue deserves further study, and that the entire question of bacterial reinoculation of human beings with "friendly" mixed populations of non-pathogenic microorganisms following antibiotic therapy should be made the subject of continuing investigation in the future. Nor should such studies be limited to the gastrointestinal tract.

CONCLUSION

It is quite possible that mankind in the future may be able to control the normal microbial flora of the entire human body, utilizing the many complex biologic and chemical interrelationships of the resident population to ward off or displace microorganisms which are pathogenic for the human host.

REFERENCES

1. Pettet, J. D., Baggenstoss, A. M., Judd, E. S., Jr., and Dearing, W. H.: Generalized postoperative pseudomembranous enterocolitis. Proc. Staff Meet. Mayo Clinic, **29**:342-349, (June 16) 1954.
2. Dearing, W. H., and Heilman, F. R.: Micrococcic (staphylococcic) enteritis as complication of antibiotic therapy; its response to erythromycin. Proc. Staff Meet. Mayo Clinic, **28**:121-134, (Mar. 11) 1953.
3. Kapp, D. F., and Collette, T. S.: Fulminating infectious enterocolitis following broad spectrum antibiotic therapy. Guthrie Clinic Bulletin, **25**:118-126, (Oct.) 1955.
4. Newman, C. R.: Pseudomembranous enterocolitis and antibiotics. Ann. Int. Med., **45**:409-444, (Sept.) 1956.
5. Surgalla, M. J., and Dack, G. M.: Enterotoxin produced by Micrococci from cases of enteritis after antibiotic therapy. J.A.M.A., **158**:649-650, (June 25) 1955.
6. Turnbull, R. B., Jr.: Clinical recognition of postoperative micrococcic (staphylococcic) enterocolitis. J.A.M.A., **164**: 756-761, (June 15) 1957.
7. Rettger, L. F.: Antagonism of bacteria and their products to other bacteria (Read before the Society of American Bacteriologists at Pueblo, Colorado. December, 1904). J. Infect. Dis., **2**:562-568, 1905; Abst., Science, New Ser., **21**: 491, 1905.
8. Mutual antagonism of bacterial variants (Editorial). J.A.M.A., **103**:494, (Aug. 18) 1934.
9. Levine, M., and Tanimoto, R.: Antagonisms among enteric pathogens and coliform bacteria. J. Bacteriology, **67**: 537-541, (May) 1954.
10. Halbert, S. P.: Relation of antagonistic coliform organisms to Shigella infections; survey observations. J. Immunol., **60**:23-36, (Sept.) 1948.
11. Bowling, R. E., and Wynne, E. S.: Studies on mechanism of antagonism by aerobacter strains. J. Infect. Dis., **89**:277-280, (Nov.-Dec.) 1951.
12. Frankel, J. J., and Wynne, E. S.: Antagonism by Gaffkya tetragena strains. J. Infect. Dis., **89**:52-55, (July-Aug.) 1951.
13. Wynne, E. S., and Norman, J. O.: On concept of "direct antagonism" in bacteria. J. Infect. Dis., **93**:243-246, (Apr.) 1953.
14. Loh, W-P, and Baker, E. E.: Fecal flora of man after oral administration of chlortetracycline or oxytetracycline. AMA Arch. Int. Med., **95**:74-82, (Jan.) 1955.

Rib Fractures and Their Complications

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DES MOINES

Chest injuries are common, and much has been written about them in recent years. Yet seldom is attention focused on the commonest of those injuries, rib fractures. As a result, the treatment of rib fractures and their complications has too often remained unchanged and traditional. Common practice in this regard has not kept pace with progress.

There are three basic principles of rib fractures and their complications:

1. The fracture itself is relatively unimportant from an orthopedic standpoint. The broken bone will heal, and with good functional result, no matter what the physician does or does not do. Of course there are exceptions to this rule, but they are so rare as to emphasize the general truth of the principle.

2. Pain associated with the fracture, because it restricts breathing and inhibits cough, is a dangerous feature of these injuries.

3. Treatment is directed solely toward the maintenance or restoration of normal breathing capacity. This last principle is applicable both to the fracture itself and to the complications.

Because of the validity of these principles, intercostal nerve block is the best form of treatment of rib fractures, for with the elimination of pain, normal breathing capacity and normal cough reflex are restored. Admittedly, the old, traditional method of chest strapping is of some possible value in the great majority of cases. No treatment could have survived so long and have become so entrenched in the practice of all physicians unless it fulfilled the prerequisites of satisfying both patient and doctor to some extent. But it is not without danger in all cases, and may compromise life in some, for it inhibits normal respiration rather than restores it.

The technic of intercostal nerve block is relatively simple, and can be readily accomplished with the patient in the lateral decubitus position or sitting upright. The block is planned so that not only the intercostal nerves accompanying the fractured ribs but the two nerves above and below the level of the fractures may be injected. Procaine hydrochloride solution, 0.5 or 1.0 per cent, is used. Paravertebral skin wheals are placed about 3 cm. laterally to the spinous processes at the suitable levels. A spinous process is approximately one intercostal space below its corresponding nerve. The needle is introduced into the intercostal space, and from 5 to 10 cc. of solution is deposited. In obese and heavily-muscled patients in whom the ribs and intercostal spaces are not definitely palpable, it is often reassuring to probe to the rib and then to direct the needle downward so as to slide it beneath the lower rib border and inward into the intercostal space. In this fashion, the appropriate intercostal nerves are injected.

Relief from pain is quite rapid. Usually, one block is sufficient. If the pain recurs in a few hours or on the next day, the block should be repeated. It is a curious fact, however, that a repetition of the original block is seldom necessary. Yet, although restricting or severe pain is gone, a soreness or ache may persist for many days and even weeks. In this respect, intercostal nerve block may prove disappointing unless its modest limitations in bringing symptomatic relief have been anticipated. Persistent soreness is almost always adequately controlled with aspirin and codeine. After the intercostal nerve block has been completed, it is sometimes expedient to utilize certain ancillary measures—a steam kettle and an expectorant to loosen secretions, and encouragement of the patient to cough and raise secretions.

Because of possible complications, every rib fracture must be supposed to harbor a potential for the rapid deterioration of the patient's condition. A variety of complications may be seen.

ATELECTASIS

Two factors operate to produce atelectasis following rib fractures: suppression of the cough reflex as a result of the pain associated with the fracture, and an increase in bronchial secretions resulting from the chest trauma.

Case 1, L. McC., a 59-year-old male, was admitted to Mercy Hospital, Des Moines, on October 1, 1950, following a fall of five feet from a tree. Upon admission he was cyanotic, his skin was cold and clammy, his temperature was 98°F., his rate of respiration was 24-38, his blood pressure was 130/90 mm. Hg., and his pulse was 80 and irregular. Chest x-ray showed fractures of the 7th rib on the right, and the 9th and 10th ribs on the left. The lungs were clear.

Treatment throughout the next few hours consisted of Demerol, morphine, chest strapping, Duracillin, aminophylline and nasal oxygen. The patient was seen in consultation on the following day. At that time he was critically ill. An electrocardiogram showed an auricular rate of 260 and a ventricular rate of 200, which were interpreted as indicative of an incomplete A-V block. Left axis deviation was present. The temperature was 102°F., and the respiratory rate was 38. Massive

atelectasis was present on the left, and there was acute dilatation of the stomach (Figure 1). Treatment consisted of bilateral intercostal nerve block at the appropriate levels, Wangensteen suction, a steam kettle at the bedside and nasal oxygen. The chest strapping was removed. The patient was digitalized. It was planned to follow the intercostal nerve block with bronchoscopic aspiration of secretions, but following relief of the chest pain, and in somewhat spectacular fashion, the patient began to cough up copious quantities of thick, bloody and rusty sputum. Bronchoscopy was deferred. Chest x-ray the next day confirmed substantial clearing of the atelectatic lung. The patient, clinically, was out of danger at that time. He was dismissed from the hospital on October 10. Follow-up x-ray 18 months later, during hospitalization for an unrelated illness, was normal.

Case 2, D. F., a 19-year-old female, was admitted to Mercy Hospital on December 31, 1952, following transfer from a hospital in another city. She had been in an automobile accident five days previously, and had been hospitalized in her home town, where the conventional treatment of sedation and chest-strapping had been instituted.

Upon admission, she was totally exhausted and critically ill, with a temperature of 103°F., a pulse of 128 and a respiratory rate of 40. Chest x-ray (Figure 2) revealed fractures of the 7th and 8th ribs on the left, a linear transverse crack of the sternum, and massive atelectasis on the right. The contralateral location of the atelectasis was apparently due to the rather unusual fact that the patient lay on her right (uninjured) side and resisted all efforts to alter this position. The chest tape was removed. Treatment consisted of nasal oxygen, steam inhalation, and intercostal nerve block on the left, followed in a few hours by bronchoscopic aspiration. Improvement was slow but progressive, and the patient was dismissed 11 days after admission.

Discussion. These two cases illustrate the problem posed by massive atelectasis following rib injury. The complication can be avoided, but once present, it must be treated with energy. After relief of pain by intercostal nerve block, bronchoscopic aspiration of secretions is usually necessary. Catheter aspiration of secretions, through the insertion of a catheter into the trachea by way of the nose, is sometimes a satisfactory substitute for bronchoscopy.

The cases also illustrate very dramatically the inherent threat to life of relatively "unimportant" rib fractures. That they represent exceptions to the usual benign course seen in rib injuries does not lessen their significance. It is believed that early intercostal nerve block, by permitting normal ventilation and adequate cough, would have aborted the treacherous chain of events that occurred.

PULMONARY CONCUSSION

This complication, as its name signifies, results from a sudden explosive force acting upon the chest and lungs. The force might be a sudden severe blow on the chest, or it might literally be the occurrence of a powerful explosion nearby. It was described during World War II in relation to in-



Figure 1. Case 1. Massive atelectasis on the left, the day following injury. The admission x-ray was clear. Rib fractures are not apparent on this x-ray.



Figure 2. Case 2. X-ray taken five days after accident. Massive atelectasis on the right. Rib fractures have been retouched.

juries sustained near to the detonation of explosives. It may be seen with or without rib fractures of the 1st rib on the right and of the a factor in chest injuries, it usually occurs in association with rib fractures. Pathologically, the lesion consists of multiple minute pulmonary hemorrhages and areas of exudation.

Case 3, F. P., a 23-year-old male, was admitted to Broadlawns-Polk County Hospital on November 26, 1949, following an automobile accident. Upon admission he appeared to be in shock. His blood pressure was 96/60 mm. Hg., his pulse was 120, and his respiratory rate was 32. His respirations were grunting and restricted, and he coughed up a small amount of frothy, bloody mucus. Fractures. In civilian life, where explosives are seldom 9th, 10th and 11th on the left were seen on x-ray (Figure 3), as well as pulmonary concussion, acute dilatation of the stomach and sublaxation of the left acromio-clavicular joint.

Treatment consisted of 500 cc. of plasma, nasal oxygen, Wangensteen suction, Demerol, and intercostal nerve block on the left. Duracillin was given. The patient responded very quickly to treatment and was dismissed from the hospital on December 5, his lungs having cleared entirely and his sole remaining disability being the partial acromio-clavicular separation.

Discussion. Certain features of this case are worthy of attention. Pulmonary concussion *per se* is not a particularly ominous finding except when it may contribute to a perilous situation. The ingredients of such a situation were present in this case: marked impairment of respiratory efficiency due to painful rib fractures, increased secretions, and diminished capacity for aeration due to the lung pathology that had been incurred. The treatment of pulmonary concussion is oxygen and sedation. But the key to successful therapy in a case of this kind remains the relief of chest pain through intercostal nerve block.

Passing notice can be taken of the failure to inject for the fractured first rib on the right. Fracture of this rib is usually almost asymptomatic because of the minimal rib excursion at this level. Gastric dilatation, a commonly associated finding in chest injuries, is treated by Wangensteen suction.



Figure 3. Case 3. Typical mottled density of pulmonary concussion. Rib fractures are not apparent on this x-ray.

PNEUMOTHORAX

Fractured ribs oftentimes, at the moment of impact and fracture, spring inward, perforate the lung parenchyma, and then return to an approximately normal costal alignment because of their extensive muscle attachments. The perforation of the lung permits the release of air into the pleural space and causes varying degrees of lung collapse. The point of lung rupture may seal very rapidly, or if it is large, it may continue to leak, and may result in a progressive tension pneumothorax. A traumatic tension pneumothorax is rather uncommon. Laceration or perforation of the trachea or major bronchus will inevitably result in a tension pneumothorax.

Case 4, W. D., a 74-year-old male, was admitted to Iowa Lutheran Hospital on August 26, 1952, following a sulky-race accident at the State Fair. He complained of severe right-chest pain. His blood pressure was 120/68 mm. Hg., and his pulse was 70. There was marked subcutaneous emphysema of the right side of his neck, chest and lumbar area. Chest x-ray (Figure 4) revealed fractures of the 6th and 7th ribs on the right, and a pneumothorax with about 50 per cent collapse of the right lung. Treatment consisted of intercostal nerve block, insertion of an intercostal needle with regulated chest suction attachment, Demerol and penicillin. The intercostal needle was removed on the following day, after a portable chest x-ray had confirmed complete reexpansion of the lung. The patient was dismissed from the hospital four days after admission.

Case 5, L. S., a 50-year-old male, was injured in a fall on April 24, 1953. The 7th, 8th and 9th ribs on the left were fractured, and there was a pneumothorax on that side. Because the pneumothorax was not of the tension type, his physician elected conservative management and followed the pulmonary status closely. The patient was seen in consultation on June 5, six weeks following the original injury. The collapsed lung had failed to expand completely (Figure 5). An intercostal needle was inserted and connected to chest suction. The needle was removed on the following day, after x-ray had confirmed the complete reexpansion of the lung.

Discussion. These two cases represent a simple and common form of traumatic pneumothorax. Contrasting "styles" of early treatment are apparent—one aggressive and the other conservative. A traumatic pneumothorax of the non-tension type is seldom dangerous in an otherwise young and healthy person. In an older patient, with the usual diminution in breathing capacity resulting from emphysema, loss of lung elasticity and cardiovascular changes, total or partial collapse of a lung may constitute a real threat to safety. Case 4, the sulky driver, illustrates how this threat can be turned aside by the simple procedure of exsufflation of the pleural air, in conjunction with the recommended intercostal nerve block. Whether this patient's course would have been less favorable under more conservative management is obviously entirely speculative, but it could hardly have been more favorable.

Case 5 presents the other side of the picture. A non-tension traumatic pneumothorax associated with rib fractures was at first treated conservatively and without intervention. The patient was considerably younger than the sulky driver, and at no time was in any danger. Yet, for all practical purposes, he was an invalid for a period of six weeks.

Exsufflation of a non-tension traumatic pneumothorax lessens both the danger and the morbidity of the injury.

A traumatic tension pneumothorax offers no alternatives as regards method of treatment. An escape mechanism for the mounting intrapleural air pressure must be created. This can be most effectively accomplished by aspiration of the pleural air. If this form of therapy is inadequate as a means of controlling the air leak, open thoracotomy and surgical repair of the damaged lung, bronchus or trachea must be effected.

The actual technic of aspiration of air from the pleural space is relatively simple. A variety of methods can be used, depending upon the equipment available and the individual physician's preference. It is common practice to use a blunt-tipped, S-shaped Clagett needle. It is introduced, under aseptic conditions, through an intercostal space—preferably the second or third anterior space. If introduced through a posterior interspace, the patient's discomfiture is increased, and the needle is more likely to become plugged. Local novacaine infiltration is used at the site of introduction. It is necessary to perforate the skin with a sharp-tipped scalpel before inserting the needle. After insertion, the needle is attached



Figure 4. Case 4. Admission x-ray shows traumatic pneumothorax on the right. The rib fractures and the margin of the partially collapsed lung have been retouched.

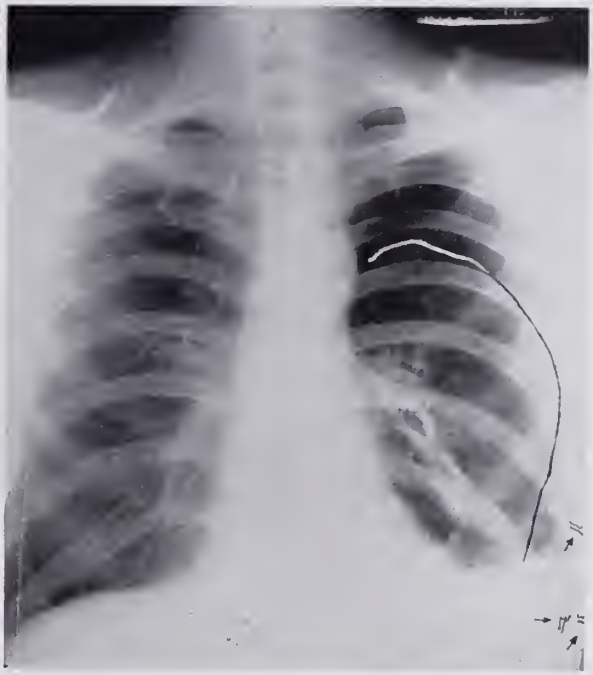


Figure 5. Case 5. This x-ray was taken six weeks after the accident. It shows traumatic pneumothorax on the left, with small pleural effusion at the base. The rib fractures and lung margin have been retouched.

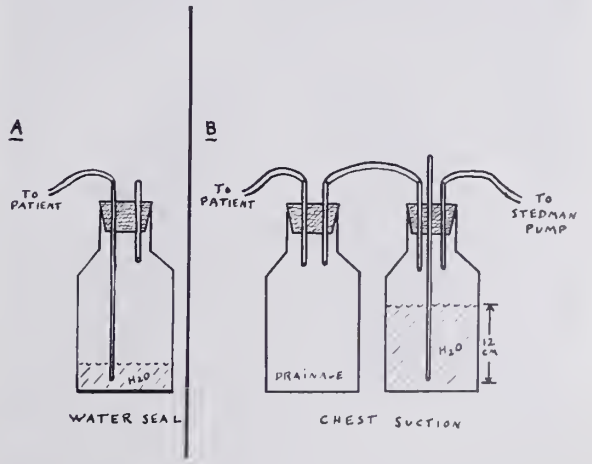


Figure 6. Bottle apparatus for removing intrapleural air. A: Water seal—no pump required. B: Regulated negative-pressure pump apparatus.

by means of tubing to a water-seal bottle or to a regulated suction apparatus such as is shown in Figure 6. It is important that the connections be air-tight, and that they be checked frequently. Antibiotics are given. Usually, in a non-tension pneumothorax, the pleural air is removed and the lung is reexpanded in a very short time. However, it is our custom to leave the needle in place overnight and to check the chest status with a portable chest x-ray before removing the needle. This routine can be recommended for its convenience and for the additional security it provides that the air leak has sealed.

SUBCUTANEOUS EMPHYSEMA

This complication, in varying degree, occurs often with fractures of the ribs. If severe, it may be very alarming to the patient, to his relatives and to the doctor. A perforated lung is the usual source of the air. Having escaped from the lung into the pleural space to create a pneumothorax, the air then escapes through a tear in the internal chest wall at the site of the rib fracture, and makes its way into the subcutaneous planes. However frightening the aspect of subcutaneous emphysema, the important consideration is the leak in the lung—not the air beneath the skin.

Treatment is directed toward the pneumothorax, and the measures previously described should be used. The subcutaneous air, in due course, will be absorbed. An uncontrollable subcutaneous emphysema raises a suspicion of laceration of the esophagus, trachea or major bronchus, just as does an uncontrollable pneumothorax. If such a diagnosis is made, a major thoracotomy must be undertaken.

HEMOTHORAX

Bleeding within the pleural space is a common complication of rib fractures, but it seldom is of significant quantity. Fracture of a rib will often tear adjacent blood vessels, and bleeding will occur into the pleural space. The bleeding is commonly self-limiting. If it is of considerable amount, it imposes upon the patient's breathing capacity.

Case 6, A. McM., a 68-year-old female, was admitted to Mercy Hospital on January 26, 1957, following an automobile accident. X-rays revealed fractures of the 4th, 5th, 6th, 7th and 8th ribs on the left, and the 6th and 7th ribs on the right (Figure 7), fractures of both right and left pubic bones, and a fracture of the left ankle. The blood pressure was 110/78 mm. Hg., the pulse was 120, and the respiratory rate was 32. Costal excursion was good and without apparent paradox, lung aeration was excellent, and the lungs were clear by x-ray. Chest pain was minimal. Because the breathing was unimpaired, because there was only minimal chest pain and because of the physicians' reluctance to move the patient about in consideration of her pelvic fractures, an intercostal nerve block was not done, but the patient was closely watched. The pelvic and ankle fractures received orthopedic attention.

The patient's general condition remained good for three weeks, but then began to deteriorate. Dyspnea was complained of. Chest x-ray (Figure 8) revealed extensive pleural fluid on the left. A medical consultant found the patient to be in congestive heart failure. He digitalized her, and urged a thoracentesis. Chest taps were done twice on the left, and a total of 2,450 cc. of sanguinous fluid was aspirated. The patient's condition then improved progressively, although a mild mental



Figure 7. Case 6. This admission chest x-ray shows bilateral rib fractures and essentially clear lung fields. The rib fractures have been retouched.



Figure 8. Case. 6. This chest x-ray taken four weeks after the accident shows extensive sanguinous fluid on the left.

depression prolonged the lady's hospitalization.

Discussion. Hemothorax is treated with aspiration of the pleural space—daily, if necessary. Massive hemorrhage creating prolonged shock must be controlled by thoracotomy and definitive hemostasis, but such cases are uncommon. Clotted hemothorax can be treated with enzyme injection into the pleural space, followed by aspiration or by surgical decortication. Decortication is preferred by many.

Case 6 shows that bleeding into the pleural space may not be readily apparent when the patient is first seen and x-rayed, immediately after an accident. Progressive bleeding, with its attendant danger, may occur during hospital observation, and the negative x-ray upon admission only serves to create a false sense of security in the attending physicians. This case also illustrates the serious burden imposed upon breathing capacity by pleural exudation. It was undoubtedly a factor in precipitating congestive failure in this instance.

One additional point with respect to this case: occasionally—particularly in older people—rib fractures are not painful and therefore do not restrict breathing. In such instances, there is no indication for intercostal block.

PARADOXICAL RESPIRATION

The ability to breathe depends not only on mobility of the chest but also on its semi-rigidity. If many ribs have been broken, a large segment of the chest wall will have lost its rigidity, and paradoxical motion results. Under such conditions, effective inhalation and exhalation are lost, ventilation becomes inadequate and life cannot long be sustained. Paradoxical respiration is seen in the so-called "flail chest," "crushed chest" or multiple rib fracture injuries.

Case 7, T. J., a 50-year-old male, was injured in an automobile accident on January 26, 1954. He was seen in consultation on January 27. Chest x-ray revealed the following rib fractures: 1st, 2nd and 3rd on the right, and 2nd, 3rd, 4th and 5th on the left. Pulmonary concussion was present. Paradoxical respiration was marked. Skeletal traction of the flail (anterior) segment of the chest was instituted by grasping the sternum with a uterine tenaculum under local novacaine anesthesia, and applying traction with weights. The traction was maintained for about three weeks, at the end of which time the chest-wall movement was normal and without paradox.

Discussion. This case illustrates the management of a crushed chest by skeletal traction. Stabilization of a flail segment of chest wall will correct paradoxical respiration. Stabilization can be accomplished by restrictive adhesive binding, or by skeletal traction. Although tight strapping of the chest will eliminate paradoxical motion to a considerable extent, it will also restrict breathing. Traction, on the other hand, will stabilize the chest and permit unrestricted breathing.



Figure 9. Case 8. This admission x-ray shows multiple bilateral rib fractures and bilateral traumatic pneumothorax. The rib fractures and lung margins have been retouched.

A uterine tenaculum, or towel clip, can be inserted under local novocaine to grasp the sternum or rib of the flail segment. The traction is weighted sufficiently to control the paradoxical motion; usually an 8-12 pound weight is necessary. Although this form of management is theoretically sound and will work effectively, it may be accompanied by disconcerting problems. The traction instrument may slip from the rib or sternum, and require readjustment. Inflammation of rib or cartilage may be incurred. Empyema has been seen following this form of treatment.

An alternative form of therapy is available: tracheotomy.

Case 8, B. K., a 22-year-old male, was admitted to Mercy Hospital on March 11, 1956, following an automobile accident. He was markedly dyspneic, cyanotic and in critical condition. Paradoxical respiration was obvious. Chest x-ray (Figure 9) revealed fractures of the 1st, 2nd, 3rd and 4th ribs on the right, and the 1st, 2nd, 3rd, 4th, 5th, 6th and 7th ribs on the left. A bilateral pneumothorax was present. The patient was taken immediately to the operating room. A tracheotomy was done under local novocaine anesthesia. The patient's desperate struggle for air stopped immediately upon the insertion of the tracheotomy tube. A Clagett needle was inserted into each pleural space, and the needles, in turn, were connected to chest suction (Figure 10). Both needles were removed the next day, but the one on the right had to be reinserted to control a small but persistent lung leak. It was removed permanently four days later. The tracheotomy tube was re-



Figure 10. Case 8. This x-ray was taken on the day following admission. The tracheotomy tube and the Clagett needles are apparent. Both lungs are completely expanded.

moved on March 26, 15 days after the accident. The patient was dismissed from the hospital on March 29.

Discussion. The air filling the nasal and oral pharynx, the larynx, the trachea and the bronchi is called the dead-space air. This volume of air—about 150 cc.—is constant for a given individual. It does not contribute in any way to gas exchange, the basic function of breathing. Yet, during each respiratory cycle, this dead air must be moved in and out.

The unprofitable movement of dead air is of little consequence under ordinary circumstances, but when vital capacity has been drastically reduced, a significant fraction of the total air moved during a respiratory cycle is dead air, and gas exchange is thereby dangerously impaired. The paradoxical breathing associated with a crushed chest greatly reduces vital capacity, and as a result the unrewarding movement of dead air becomes an oppressive burden.

A tracheotomy serves as a shunt, and eliminates in great measure the dead-air factor. The effectiveness of this operation in the treatment of flail chest is even greater in practice than in theory. Other advantages follow tracheotomy: bronchial secretions are easily aspirated, and pain is immediately relieved.

Tracheotomy is, without question, the preferred treatment for paradoxical breathing in multiple rib fracture injuries. It is accomplished under local novacaine anesthesia with little difficulty.

SUMMARY

Rib fractures are common injuries. The danger of complications requires that treatment be directed toward their prevention. When complications are already present, prompt corrective measures are indicated. Breathing capacity, rather than the broken bone, is the dominant consideration in treatment.

Specific complications and therapeutic procedures have been discussed in detail, and illustrative cases have been reviewed.

REFERENCES

1. Baskin, M. J.: Mediastinal emphysema; report of case due to fractured rib. Colorado Med., **29**:371-373, (Sept.) 1932.
2. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice, Fourth Edition. Toronto, U. of Toronto, and Baltimore, Williams & Wilkins Co., 1945.
3. Brown, J. D., and Friedman, P. S.: Pulmonic contusion in intact thorax; report of case. Pennsylvania M. J., **46**:352-354, (Jan.) 1943.
4. Cameron, D. A., O'Rourke, P. V., and Burt, C. W.: Analysis of management and complications of multiple (3 or more) rib fractures. Am. J. Surg., **78**:668-676, (Nov.) 1949.
5. Child, F. S., Jr.: Traumatic pneumothorax caused by toy balloon. J.A.M.A., **80**:1452, (May 19) 1923.
6. d'Abreu, A. L.: A Practice of Thoracic Surgery. Baltimore, Williams & Wilkins Co., 1953.
7. Graham-Stewart, A.: [Pneumothorax] Practitioner, **96**:555, (May) 1916.
8. Harvey, J. L.: Accidental pneumothorax. J.A.M.A., **94**:21-23, (Jan. 4) 1930.
9. Hochberg, Lew A.: The Thoracic Surgical Patient—Preoperative, Anesthetic and Postoperative Care. New York, Grune & Stratton, 1952.
10. Johnson, Julian, and Kirby, Charles K.: A Handbook of Operative Surgery: Surgery of the Chest. Chicago, The Year Book Publishers, Inc., 1952.
11. Key, John Albert, and Conwell, H. Earle: A Management of Fractures, Dislocations and Sprains. St. Louis, C. V. Mosby Co., 1951.
12. King, J. D.: Concussion of lung. Surgery, **12**:415-418, (Sept.) 1942.
13. King, J. D., and Curtis, G. M.: Lung injury due to detonation of high explosive. Surg. Gynec. & Obst., **74**:53-62, (Jan.) 1942.
14. Leopold, J. S., and Castrovinci, F.: Traumatic pneumothorax in newborn. J. Pediat., **9**:620-623, (Nov.) 1936.
15. Lindskog, Gustaf E., and Liebow, Averill A.: Thoracic Surgery and Related Pathology. New York, Appleton-Century-Crofts, 1953.
16. Lingeman, L. R., and Fenstermacher, W.: Bilateral traumatic pneumothorax, with recovery. Radiology, **17**:557-579, (Sept.) 1931.
17. Magnuson, Paul B., and Stack, James K.: Fractures, Fifth Edition. Philadelphia, J. B. Lippincott Co., 1949.
18. Overholt, Richard H., and Langer, Lazaro: The Technique of Pulmonary Resection. Springfield, Charles C Thomas, 1949.
19. Ritvo, Max: Chest X-ray Diagnosis. Philadelphia, Lea & Febiger, 1951.
20. Rubin, Eli H.: Diseases of the Chest With Emphasis on X-Ray Diagnosis. The Principles of Surgical Treatment, by Morris Rubin. Philadelphia, W. B. Saunders Company, 1947.
21. Searls, H. H.: Traumatic pneumothorax. S. Clin N. Amer., **6**:521-528, (Apr.) 1926.
22. Sweet, Richard H.: Thoracic Surgery, Second Edition. Philadelphia, W. B. Saunders Company, 1954.
23. Thomas, A. R.: "Blast chest"; radiological aspect of pulmonary changes following exposure to high pressure waves. Brit. J. Radiol., **14**:403-406, (Dec.) 1941.
24. Tilton, B. T., and Schroeder, M. J.: Aspiration in traumatic pneumothorax. M.J. & Rec., **129**:444-446, (Apr. 17) 1929.
25. Wilson, P. D., ed.: Experience in the Management of Fractures and Dislocations (Based on an Analysis of 4,390 Cases). By the Staff of the Fracture Service, Massachusetts General Hospital, Boston. Philadelphia, J. B. Lippincott Co., 1938.

Attend the AMA Annual Meeting
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Tumor of the Omentum Simulating Portal Cirrhosis

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DES MOINES

THE GREATER OMENTUM has been appropriately compared to the good citizens of Samaria, who were full of compassion and sympathy for sufferers, but seldom became personally involved by disease. Primary tumors of the omentum are extremely rare, and my review of the literature hasn't turned up an account of one that clinically simulated portal hypertension.

Incidence. A case of omentum tumor was reported by Gairdner in 1852. Hargan reviewed the literature and reported 97 cases in 1935. Up to 1950, only 115 cases had been reported in the literature.

Tumors of the omentum may occur at any age, but the majority are found in children, and 75 per cent occur in females.

Pathogenesis. It is felt that there is a structural similarity between lymphangioma, cystic hygroma of the neck, cyst of the liver and polycystic disease of the kidneys. Of the 97 cases that Hargan reviewed, 48 per cent were hematogenous in origin, and 52 per cent were lymphogenous. Most cysts of the omentum are endothelial and arise from lymph vessels. The high incidence in children suggests congenital origin. Some of the tumors which are reported to have originated in the omentum were lipoma, liposarcoma and fibrosarcoma.

Arthur Purdy Stout and Chester Cassel, in 1943, reported a vascular tumor of considerable size originating in the omentum, and called it a hemangio-pericytoma. Prior to that time, tumors of similar character had not been reported as originating from the omentum. In their patient, who died at the age of 92 years, an abdominal tumor was present for 60 years, with no symptoms. The tumor measured 12 x 9 x 8 cm., it was nodular and encapsulated, and it had large veins coursing over its surface. There were areas of fibrosis and necrosis in the tumor which were confined to the omentum. The tumor was composed of capillaries, surrounded by cells that were believed to be pericytes. Hence, the name "hemangio-pericytoma."

Symptoms of Omentum Tumors. Since most omental tumors occur in children, the predominant symptom is usually abdominal swelling. The symptoms are slow in development and are of long duration. In addition to the swelling, there may be a palpable mass, and some abdominal pain and distress, particularly if there is a rupture of the cyst. In many cases there are no symptoms, and the tumor is encountered inadvertently. From 1911 until 1949, only 29 omental cysts were encountered at the Mayo Clinic. Twenty-two of them were asymptomatic and were found incidentally during surgery. Of the seven cases explored because of symptoms, there were five patients in whom cysts were considered to be primary in the omentum.

Differential Diagnosis. In the differential diagnosis of the omental cysts, one must consider six possibilities: (1) ascites, (2) ovarian cyst, (3) mesenteric cyst, (4) retro-perineal cysts, (5) cystic tumors of the kidneys, and (6) tuberculosis.

One of the cases reported by Berger and Rothenberg had palpable tumors. The diagnosis naturally is attended with considerable difficulty because of the rarity of the disease and the superimposed acute abdominal condition which masks the picture. Obviously, the rarity of the disease precludes accurate diagnosis in many instances.

Diagnosis. In diagnosing tumors of the omentum, it is probably advisable to study the gastrointestinal and genitourinary tracts radiologically in an attempt to exclude masses arising from those systems.

Treatment. Omental cysts are usually large, thin-walled, multiloculated bodies containing serosanguinous fluid. They tend to rupture easily, thus causing acute symptoms. Contrastingly, mesenteric cysts do not rupture easily, but do cause intestinal obstruction. The treatment consists of excision of the tumor or cysts, if possible, or of incision and drainage. In some instances, marsupialization has been found adequate. Cysts and tumors of the omentum show little tendency to recur or to undergo malignant degeneration.

CASE REPORT

A 51-year-old male presented himself in September, 1956, with a complaint of recurrent inguinal herniae. A bilateral hernioplasty had been performed in 1950, and had been followed by an almost immediate recurrence. In 1953, a bilateral inguinal hernioplasty was done, and shortly thereafter each hernia recurred. During the succeeding three years he was almost bedfast, and each side of the scrotum attained the size of a football. He also noticed a marked enlargement of his abdomen and lost considerable weight in his chest and face.

On entrance examination, his hemoglobin was 14.7 Gm., and his red blood cell count was 4,494,000. Thymol turbidity was reported as 3 + in 48

hours. His icteric index was 9.4 units, his total proteins were 6.13 Gm., his serum albumin was 4.15 Gm., his globulin was 1.98 Gm. and his prothrombin time was 60 per cent of normal.

X-ray studies of the gastrointestinal tract showed a Zenker's type diverticulum of the esophagus. The esophagus was irregular in its appearance, and there was evidence of esophageal varicosities. In addition, there was a hiatal hernia of the stomach, with a portion of the stomach approximately 5 cm. in diameter herniated above the dome of the diaphragm. The stomach was reported as normal, and the duodenum showed no abnormalities. The entire abdomen had a "ground glass" appearance on radiologic examination, suggesting ascites.

Shortly after admission, the left scrotum was aspirated, and 4,000 cc. of straw-colored fluid was evacuated. In addition, a paracentesis was done, and 8,150 cc. of straw-colored fluid was removed. It was felt that with ascites, evidence of a hepatocellular damage and demonstration of esophageal varices on radiologic study, the patient had cirrhosis of the liver. He was therefore discharged from the hospital.

The patient was readmitted to the hospital two weeks later, when it was felt that a mass could be palpated within his abdomen. Exploratory celiotomy was recommended, and the surgery was performed on October 25, 1956.

A transverse incision was made across the entire width of the abdomen, and a large, massive tumor, apparently confined to the omentum, was discovered. The mass was about 60 cm. in diameter, and seemed to occupy the greater omentum. Grossly, the tumor resembled eight or ten placentae matter together. There were numerous veins about the size of one's little finger growing into the anterior abdominal wall and growing into the gastrocolic omentum. The omentum extended into each hernial sac, and the tumor had apparently occluded the internal ring on each side.

During the removal of the tumor, the cyst was inadvertently ruptured and was found to contain a cheesy type of material that was unidentifiable grossly. The entire mass was excised, after the greater omentum had been clamped as close as possible to the transverse colon.

Exploration of the remainder of the abdomen showed the liver, spleen, gastrointestinal tract and gallbladder to be normal. The patient's postoperative course was uneventful, and he was discharged on approximately his seventh postoperative day.

Pathology. The specimen was designated an "omental tumor," it consisted of a large tumor mass surrounded by omentum, and it measured 23 x 9 cm. Externally (Figure 1), it was rough and irregular, it was partly firm and partly flabby in consistency, and it varied in color from pinkish yellow, to tan, to purple. Large, dilated vessels on the surface measured up to 1 cm. in diameter.

The large cysts that nearly covered the external surface of the specimen varied in diameter from 20 cm. (the one ruptured during surgery) to 5 cm. These cysts were cross-sectioned in several areas, and the thickness of their external walls was found to exceed 0.2 cm., but where there were no cysts, the thickness of the tumor wall was in some places as great as 1 cm. The color of the wall tissue varied from pale yellow to tan. Cross-section through the previously unruptured cysts revealed that some of them contained straw-colored and others serosanguinous fluid. The walls of these cysts were colored like the other wall tissue and they glistened, but they showed marked trabeculation.

The interior tumor tissue (Figure 2) was found on cross section to be pale yellow, to tan, to brown. It was partially very firm in consistency, and it contained numerous cysts, varying in diameter from 0.5 to 2.5 cm.

The pathologic diagnosis, made after microscopic examination, was hemangio-pericytoma.

Because of the rarity of the tumor, slides were sent to Dr. Arthur Purdy Stout, of Columbia University, and his report, submitted on November 13, 1956, was a follows:

"I am greatly puzzled by the large cystic tumor of the omentum which you sent me. The tumor cells do not look like any with which I am familiar. I do not believe the tumor is a hemangio-pericytoma because there are not nearly enough capillaries; however, I am willing to entertain this as



Figure 1. Exterior.

a bare possibility. I could prove it one way or the other if you would send me some unstained slides for silver reticulin and Masson stains. My associate, Raffaele Lattes has suggested mesothelioma as a possibility. This I can scarcely credit; at least it does not look at all like the mesotheliomas that I have seen. I have also wondered if the cells could be histiocytes and the tumor a histiocytoma. But this also is a very long shot; it is nothing more than a bare suggestion. I do not know whether or not differential stains will help but I would like to try them.

"I have done trichrome and mucicarmine stains on this puzzling omental tumor and these have not helped much. There is no evidence of mucoid secretion and the tumor cells are each surrounded by a delicate reticulin fiber. This seems to me to rule out an epithelial origin for the cells and also a histiocytic and mesothelial origin. The trichrome stain accentuates what can also be seen in the H&E preparations, namely, that there is a narrow clear zone about many of the nuclei. This is a feature of the pericytes of a glomus tumor. This tumor does not have the vascular pattern of the hemangio-pericytoma or the glomus tumor, yet I wonder if it could be a growth related to them. Another resemblance is to the stromal elements of a salivary gland mixed tumor but as the other elements are missing and mixed tumors do not grow in the omentum, this must be discarded. I have one last suggestion: since these cells somewhat resemble the pericytes of the glomus tumor and hemangio-pericytoma and pericytes are related to smooth muscle cells, could these cells be leiomyoblasts? It seems fantastic to suggest it but I do so because in the stomach and occasionally in the uterus there are leiomyomas with rounded cells. In the cytoplasm of the cells of this tumor I can rarely find either acidophilic granules or fibrils. I think it possible that this tumor might be a bizarre vascular leiomyoma. It is the least objectionable suggestion I have for it—really I do not know what the tumor can be."



Figure 2. Cross section of interior.

When the patient was discharged from the hospital, he was told to return soon for the repair of his recurrent inguinal herniae. The left inguinal hernia strangulated one month following his discharge, and he was then readmitted as an emergency. A portion of the small bowel was resected, the hernia was repaired and his subsequent convalescence was uneventful.

Two months later, he reentered the hospital for repair of his right inguinal hernia, the surgery was performed, and at the present he has no symptoms referrable to his abdomen.

SUMMARY

The case of a patient with a large omental tumor of long duration has been presented. With clinical ascites, esophageal varices and hepatocellular damage, the tumor simulated cirrhosis of the liver.

BIBLIOGRAPHY

1. Case records of Massachusetts General Hospital: weekly clinicopathological exercises: case No. 42192. New England J. Med., **254**:914-917, (May 10) 1956.

2. Coursley, G., Hallenbeck, G. A., and Bernatz, P. E.: Clinically significant primary omental cysts; report of two cases. Proc. Staff Meet. Mayo Clin., **31**:373-376, (June 13) 1956.

3. Arata, J. E., and Blanchet, H. J., III: Large primary omental cyst simulating acute appendicitis. U. S. Armed Forces M. J., **5**:536-539, (Apr.) 1954.

4. Jackson, J. S., Childs, L. G., and Grandy, C. D.: Primary omental cyst: theory of origin and case report. J. Nat. M. A., **45**:221-222, (May) 1953.

5. Beller, A. J., and Nach, R. L.: Cystic lymphangiomata of greater omentum. Ann. Surg., **132**:287-296, (Aug.) 1950.

6. Beaven, P. W., and Kerr, A., Jr.: Omental cyst—confusion with ascites. J.A.M.A., **144**:306-307, (Sept. 23) 1950.

7. Beahrs, O. H., and Dockerty, M. B.: Symposium on abdominal surgery: primary omental cysts of clinical importance. S. Clin. North America, **30**:1073-1079, (Aug.) 1950.

8. Matthews, F. J. C.: Cystic tumor of great omentum. Guy's Hosp. Rep., **99**:77-78, 1950.

9. Adamski, E. J., Walsh, F. J., Narat, J. K., and Cipolla, A. F.: Multiple cystic lymphangiomas of omentum. Illinois M. J., **96**:259-261, (Oct.) 1949.

10. Maguire, D. L., and Buist, A. J.: Primary cysts of omentum. J. South Carolina M. A., **42**:2-5, (Jan.) 1946.

11. Coolican, J. H.: Lymphangioma of great omentum. Irish J. M. Sc., pp. 677-678, (Nov.) 1945.

12. Hurwitt, E. S.: Cystic lymphangioma of omentum causing acute surgical abdomen. J. Mt. Sinai Hosp., **10**:294-297, (May-June) 1943.

13. Stout, A. P., and Cassel, C.: Hemangiopericytoma of omentum. Surgery, **13**:578-581, (Apr.) 1943.

14. Gray, H. K., and Sharpe, W. S.: Lymphangioma and hemorrhagic cyst of omentum; report of 2 cases. Proc. Staff Meet. Mayo Clin., **16**:583-586, (Sept. 10) 1941.

15. Guernsey, C. M.: Primary tumors and cysts of omentum. Proc. Staff Meet. Mayo Clin., **14**:694-698, (Nov. 1) 1939.

16. Berger, L., and Rothenberg, R. E.: Cysts of omentum, mesentery, and retroperitoneum; clinical study of 18 cases. Surgery, **5**:522-534, (Apr.) 1939.

17. Fishback, D. B.: Cyst of gastrocolic omentum. Am. J. Digest. Dis., **5**:252-254, (June) 1938.

18. White, C. S.: Hemangio-endothelioma of omentum. Am. J. Surg., **22**:295-298, (Nov.) 1933.

19. Peterson, E. W.: Mesenteric and omental cysts. Ann. Surg., **96**:340-349, (Sept.) 1932.

State University of Iowa College of Medicine

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 57-YEAR-OLD WHITE man was admitted to the University Hospitals complaining of urinary frequency and dysuria of four weeks' duration. One week before admission, he had noted that his urine had a chalky appearance in the morning, but was clear in the evening. During urination, he had had a very sharp, stabbing pain in the perineal region. He urinated hourly, day and night. During the week before admission, he had fever late in the day and sweating at night. There was no diminution in the size of the urinary stream.

At age 37, he had had jaundice lasting for about three days, associated with severe nausea and vomiting. He had farmed until he reached the age of 42, then worked as a stock food salesman for 13 years, and had been a carpenter and stone mason for the two years immediately prior to his admission.

On physical examination, his temperature was found to be 100.2°F., his pulse 88 beats per minute and his respirations 20 per minute. The blood pressure was 110/65 mm. Hg. The patient appeared chronically ill, but he was alert and cooperative. The skin was normal. Auscultation of the lungs revealed many moist rhonchi on the right, and inspiratory wheezes on the left. The heart was normal. The prostate was 3+ enlarged, irregular, hard and fixed. Pressure on the prostate produced a greenish-yellow urethral discharge. Bilateral hydroceles were found.

The hemoglobin was 11 Gm. per 100 ml. The red blood cell count was 4,100,000 per cu. mm. The white blood cell count was 15,600 per cu. mm., with a normal differential. The urinalysis was negative. Prostatic secretions, on microscopic examination, showed spherical bodies 20-30 microns in diameter having double refractile walls. In addition, there were some budding forms. The blood Wassermann was negative. The intravenous pyelograms were normal. The roentgenogram of the chest showed "miliary deposits scattered uniformly throughout both lung fields and calcified nodes at the right hilum." The blood urea nitrogen was 13 mg. per 100 cc. The creatinine was 1.2 mg. per 100 cc. Spherical bodies like those found in the prostatic secretions were also in the sputum. The patient was then treated with streptomycin and penicillin for several weeks. At the same time, he received a saturated solution of potassium iodide in increasing amounts until a dose of 135 drops three times a day was reached. He improved during his 65-day hospital stay, and was almost symptom-free when he was discharged. His weight had increased from 123 to 130 pounds, and his urinary symptoms had disappeared.

Two months later, he was rehospitalized because of small verrugas lesions on the left ala nasae, the upper lip, the cheek and the dorsum of the left hand. These had developed while he was still taking potassium iodide. A biopsy of the skin lesions revealed the same spherical bodies that had been noted in his sputum and prostatic secretions. Carbon dioxide snow was used on the skin lesions. Chloromycetin and Promizole (1 Gm. q.i.d.) were also administered. After 100 days of hospitalization, the skin lesions cleared and his weight increased to 139 pounds. He was then discharged, and was seen in the out clinic at monthly intervals. During these visits it was noted that the miliary lesions were resolving and being replaced by a diffuse, fibrotic process in the chest. He was continued on saturated solution of potassium iodide, 200 drops three times a day. When last seen, approximately a year after his first admission, his skin lesions were healed, and he had no evidence of an active disease process.

Six years later, he returned because of cough, shortness of breath, anorexia and weight loss. He stated that he had had an attack of pneumonia several months before, and felt that he had not completely recovered. He had lost 30 pounds, and noted considerable weakness in all physical activity. He had taken some saturated solution of potassium iodide on and off during the six-year interval, but was taking only 50 drops four times a day at the time of his admission. In addition to shortness of breath, he had a severe cough productive of copious amounts of gray sputum.

On physical examination, the blood pressure was 75/40 mm. Hg., the pulse was 90 beats per minute, and the respirations were 20 per minute. The body temperature was 101°F. He appeared chronically ill. There were areas of depigmentation of the face and left hand, and some areas of increased pigmentation in the hand creases and on the buttocks. Examination of the chest revealed expiratory rhonchi, diminished breath sounds and an increased AP diameter of the rib cage. The liver was palpable two fingerbreadths below the costal margin. The neurologic examination showed hypoactive deep-tendon reflexes, a negative Babinski and absence of ankle jerks. His urinalysis was not remarkable except for a trace of albumin. The hemoglobin was 11.4 Gm. per 100 cc., the white blood cell count was 8,850 per 100 cc., with a normal differential. The sedimentation rate was 66 mm. per hour. A bone-marrow was normal, except for a mild eosinophilia. A roentgenogram of the chest

showed an increase in lung volume, with a picture characteristic of pulmonary emphysema. The heart size was 50 per cent smaller than on previous chest roentgenograms. X-ray films of the shoulder and pelvis were normal. A skull film showed a density that was 5 mm. in diameter and was thought to be a bony island in the skull. Cephalin flocculation tests were negative in 24 and 48 hours. Zinc turbidity was 8.7 units, and thymol turbidity was 1.0 units. Serum sodium was 132 mEq./L., serum potassium 5.4 mEq./L., serum chloride 110 mEq./L. and CO_2 content 18.6 mEq./L. One day later, these values were 140, 5.4, 107 and 19.6 mEq./L., respectively. Total plasma proteins were 5.6 Gm. per 100 cc., with an albumin of 3.5 and a globulin of 2.1. Bilirubin was 0.8 mg. A 24-hour urine collection of 760 cc. contained .67 Gm. of creatinine and 5.0 mg. of 17-ketosteroids, giving 7.5 mg. of 17-ketosteroids per gram of creatinine.

Twenty units of Acthar-gel was given intramuscularly for two days. A 24-hour urine collection of 200 cc. was made. This contained .19 Gm. of creatinine and 1.6 mg. of 17-ketosteroids, giving 8.4 mg. of 17-ketosteroids per gram of creatinine. The BUN was 38 mg. per 100 cc., and the creatinine was 1.6 mg. per 100 cc. The cholesterol was 186 mg. per 100 cc., and the cholesterol esters were 107 mg. per 100 cc. An EKG was normal. Bone-marrow and sputum cultures were negative.

The patient was receiving acetylsalicylic acid, chloral hydrate and potassium iodide during this hospitalization. His blood pressure ranged between 80 and 90 systolic, and 60 and 70 diastolic. His temperature remained normal after the first day. On the eighth hospital day, the patient complained of nausea and was given 25 mg. of Dramamine intramuscularly. After sleeping quietly for two hours, he awakened and began to perspire profusely and complained of an inability to move his legs. He expired a few minutes later.

CLINICAL DISCUSSION

Dr. Paul M. Seebohm, Internal Medicine: In a study of disease processes, it is desirable to have some knowledge of the natural course of the disease. It takes considerable time to obtain this information about chronic diseases. This conference is concerned with the case of a man who had an illness for a number of years and whose records, including a review of his final examination, are complete at this hospital. Dr. Sheets will discuss the protocol as an unknown.

Dr. F. R. Sheets, Internal Medicine: This man's illness began about six years before his death. At the age of 50, he had the first symptoms. They were related to the genitourinary tract, and consisted of a chalky urine and, particularly, of a stabbing pain in the perineal region. On physical examination, the prostate was enlarged, irregular, hard and fixed. These findings make me think immediately of neoplastic disease. On the other hand, I should like to know whether or not there was pain on palpation of the gland. I wouldn't expect a carcinoma of the prostate to be painful, but I do suspect cancer in this instance because pressure upon the prostate produced pus.

In addition to prostatic infection, there were signs of disease in another system. These signs were rhonchi on one side of the chest, and wheezes on the other. The laboratory data showed a significant degree of anemia in addition to a slight leukocytosis.

Then we come to the crux of the laboratory examination—that of the prostatic secretions. Microscopic study showed round bodies 20 to 30 microns in diameter, with double refractile walls. Some budding forms were also noted. From this description, one has to think first of blastomycosis, but he must keep in mind that a giant form of histoplasmosis could be described in these terms. An x-ray of the chest showed some miliary involvement.

At this point, then, one has to think first of blastomycosis as the primary disease and keep histoplasmosis in mind, along with monilia and other forms of fungus infections, not to mention tuberculosis and some of the granulomas. Apparently the physicians responsible for the patient's care reasoned in much this fashion, for they gave him potassium iodide in fairly large doses. I suppose that the streptomycin and penicillin were given because of the possibility of secondary infection of the urinary tract, or even of the lungs.

During the patient's first hospital stay, he progressed quite well and was discharged. Two months later, he was readmitted with skin lesions involving his nose, upper lip, cheek and hands. These lesions are described as verrucous. That description, along with the locations of the lesions, seems to indicate blastomycosis or possibly histoplasmosis, although histoplasmosis ordinarily does not cause this type of skin lesion. A skin biopsy revealed the same sort of organism as had been recovered from the prostatic smear and from the sputum. Again the patient improved on a very large dose of potassium iodide. A chest x-ray showed that the pulmonary lesions were healing, and the fibrotic process was seen.

Six years later, the patient was readmitted with symptoms of pulmonary infection. Apparently he had had a fairly stable course during the intervening period. Activation of his disseminated disease had occurred in the pulmonary system. He had lost 30 pounds in weight and was weak. The productive cough and pulmonary findings indicate that at this stage of his pulmonary disease he had, in addition to fibrosis, chronic bronchitis and emphysema.

But apparently something else was going on at that time in addition to the pulmonary difficulty and the previously mentioned genitourinary ones. The blood pressure was 75 40 mm. Hg., though

previously it had been normal. The depigmentation of the face suggests diabetes, Addison's disease or pernicious anemia. At least those are the things that come to my mind as being sometimes associated with vitiligo. The increased pigmentation of the palmar creases would be significant if the examiner who saw him during his previous hospitalization had chanced to record that those areas were not heavily pigmented at that time. But Dr. DeGowin has observed that people of certain ancestry from the Black Forest region of Germany may have increased pigmentation of their palms. Thus, in the absence of evidence that a change had taken place, this may be no basis for anyone's thinking of Addison's disease. Likewise, the pigmentation of the buttocks may be misleading. I suspect that this man had been sitting around quite a bit, and because he was skinny, the resultant trauma was responsible for the hyperpigmentation.

The liver was palpable two fingerbreadths below the costal margin. Knowing that this man had pulmonary emphysema, I am not sure whether his liver was enlarged or whether it was merely displaced downward because of the low diaphragm.

Another significant finding was that the heart size had decreased 50 per cent from that noted on previous examination. This may have resulted from the process of elongation of the mediastinum due to emphysema, or it may have been due to hypo-adrenalism, a condition which characteristically causes a decrease in heart size.

The serum sodium was slightly low. On two occasions this serum potassium was above the average normal limit. This finding certainly is not diagnostic, but I think it is presumptive evidence, at least, of a deficiency in adrenal function. I should like at this time to ask Dr. Bradbury to tell us about the crucial test by means of which one can decide whether a patient has Addison's disease or hypo-adrenalism.

Dr. J. T. Bradbury, Biochemistry: Two 24-hour collections of this patient's urine were sent to the laboratory for 17-ketosteroid determinations as an index of adrenal function. The first collection, 760 cc., contained .67 Gm. of creatinine and 5.0 mg. of 17-ketosteroids. Thus, there was 7.5 mg. of ketosteroids per gram of urinary creatinine. Our normal value is 8.0 $\pm$ 2.0 mg. of ketosteroids per Gm. of urinary creatinine. The second specimen, 200 cc., was obviously incomplete, since it contained only 0.19 Gm. of creatinine. On the basis of the creatinine ratio, the 17-ketosteroids were 8.4 mg./Gm. of creatinine. These findings were normal and offer no evidence confirmatory of adrenal insufficiency.

It should be pointed out, however, that the adrenal insufficiency seen in adrenal hyperplasia, wherein the adrenals are able to produce normal amounts of hydrocortisone only under excessive stimulation, is characterized by unusually high 17-ketosteroid excretion, and ratios of 40 to 100 mg. of ketosteroids per gram of urinary creatinine. The 17-ketosteroid excretion is an index of the adrenal production of androgenic compounds, and is not an index of the adrenal production of glucocorticoids, which are a major life-maintaining contribution of these glands.

Dr. Sheets: I think that though normally the determination of 17-ketosteroids is a crucial test in the decision of whether or not a patient has hypo-adrenalism, the second specimen certainly wasn't of very much help because of its low volume.

Now, it might be helpful if we knew the condition of the patient at the time the specimen was collected. If the patient were dying or were dehydrated or couldn't excrete more urine, we might attach a different significance to the incompleteness of the second urine collection than we might if we were told that a portion of his 24-hour excretion was lost. But lacking definite information on this point, we can draw no conclusions.

The patient was given two doses of Acthar-gel on consecutive days in order to increase his 17-ketosteroid excretion. The ACTH should have been given three days, and then the increase in the 17-ketosteroids should have been measured. If there is no increase from a low value under such circumstances, then one is justified in concluding that the adrenals are not working well for some reason or other. The blood urea nitrogen was 38 mg. per 100 cc., and the creatinine 1.6 mg. per 100 cc. These findings suggest dehydration or hypofunction of the adrenals. Slight increases in the blood urea nitrogen and creatinine are part of the picture of the acute phase of hypo-adrenalism.

Dr. Carl L. Gillies, Radiology: The chest x-ray film taken seven years ago shows miliary deposits scattered uniformly throughout both lung fields, and a normal-sized heart shadow. The film taken one year later shows definite regression of the punctate lesions. The third film, taken at the patient's final hospital admission, shows considerable emphysema of both lower lobes and about a 50 per cent reduction in the size of the cardiac shadow—a greater reduction than could be accounted for on the basis of the emphysema alone. The roentgenologic picture, therefore, is suggestive of a miliary granulomatous process that was evident seven years ago, followed by fibrosis, emphysema and Addison's disease.

Dr. Sheets: I was really more interested in the skull than in the chest. The protocol says that the skull films showed a density with a diameter of 5 mm. which was thought to be a bony island in the skull. Do you remember whether that was away from the sella?

Dr. Gillies: Yes, it was.

Dr. Sheets: I was particularly interested in knowing of any indication that the adrenal insufficiency was secondary to pituitary disease,

rather than a primary adrenal disease. What you have told me, of course, contains nothing of the sort.

Now for my summary, and a comment upon the incident that occurred just before the patient's death. I think that this man had blastomycosis and that the disseminated disease involved the pulmonary system, the genitourinary system and the adrenals. Outside of the fact that the blood pressure was low, I think that the most important finding that might lead to the diagnosis of Addison's disease is the fact that one might reasonably expect a patient with disseminated blastomycosis of this duration to end up with destroyed adrenals from that cause.

As regards the incident that immediately preceded the patient's death—and I wish merely to make a point, rather than to hazard a guess as to just why he died—I should like to say that if he had hypo-adrenalism, the administration of many drugs was a hazardous thing to do. Possibly the Dramamine that was given him for his nausea could have had something to do with his dying. All patients who have Addison's disease in an uncontrolled state are in a precarious situation. Tests such as the BMR, the glucose tolerance, etc. which are ordinarily performed on normal people will kill such patients. Small doses of drugs can be similarly fatal to them.

On the other hand, because of the difficulty this patient had with his legs just before his death, I don't think it is unreasonable to suggest that he may have had a mycotic aneurysm of the aorta, or that one of his spinal cord arteries may have ruptured. He had been ill for a very long time, and his disseminated disease had had an opportunity to involve all of the systems and produce any sort of complication that one can think of in the way of destruction of tissues.

Dr. W. B. Bean, Internal Medicine: Do you believe, Dr. Seebohm, that fungus disease of the lung is a common precursor of this kind of emphysema? We always wonder where emphysema comes from. Is it related to fungus infection?

Dr. Seebohm: I should say that it is not a usual cause of the emphysema that we see so commonly. I may be wrong, for when we are given a chest film taken late in the course of the disease and aren't shown previous ones or given a history of treatment, we can't rule out blastomycosis. However, the natural course of blastomycosis seems to be progressive, unless it is specifically treated.

I agree with your suggestion that what we call "primary emphysema" may have some subtle cause such as this which we have been unable to detect.

I hope everyone else is just as dissatisfied as I am over the fact that we have good clinical evidence of Addison's disease, but poor laboratory evidence. Did that bother you, Dr. Bradbury?

Dr. Bradbury: Yes.

Dr. Henry E. Hamilton, Internal Medicine: By "poor laboratory evidence," do you refer to the fact that the ketosteroids were out of line?

Dr. Seebohm: Yes, they were normal.

Dr. Hamilton: But the other biochemical and clinical evidence supported that diagnosis. The potassium, sodium and chloride values were consistent with Addison's disease. I don't think we should hang our hats on any one single test. Rather, we should weigh all evidence, clinical and laboratory, before making a diagnosis.

Dr. Seebohm: Are you not more impressed by the reduction in heart size than with a serum sodium of 132 when you consider the variability of sodium determinations in general?

Dr. Hamilton: I agree with you. Everything points to Addison's disease except one little test.

Dr. Seebohm: I am disturbed because the "one little test" is one of the most direct measurements of adrenal function. Is that not correct, Dr. Bradbury?

Dr. Bradbury: Yes.

Dr. Seebohm: It is an output product, isn't it?

Dr. Bradbury: Yes.

Dr. Sheets: I don't think this example is necessarily a reflection on the test as it is usually done. I don't think we can rely upon the results in this instance because of the extraordinary circumstances. Dr. Bradbury didn't have very much urine to work with, and I want to know why he didn't have it. Because he didn't have enough urine, he has souped-up the final value of 8 by a ratio that magnifies any possible error to an extreme degree. I think that if we knew he had had a 24-hour urine specimen to work with and still got results like this in a patient with Addison's disease, then we really would have cause for feeling upset.

Dr. Seebohm: There is no mystery about how it happened that the second 24-hour urine collection was short. It happened because one of the simplest measurements that one can make in a hospital cannot be carried out as a routine. There are many different reasons: changing of the ward staff, the patient's forgetting to void in a urinal, orderlies' neglecting to measure urine before disposing of it, etc. Dr. Bean could give you a long dissertation on this subject. He gets around the difficulty by setting up a special ward with a set of special rules. Everything that goes into or comes out of that ward has to be accounted for. But on a general hospital ward, such problems as these are almost unsolvable. From time to time, each of us has exercised the requisite supervision just for the sake of showing that it can be done for a day at a time, but it is too much to expect that any of us would devote all of his time to such a task every day.

Dr. J. M. Layton, Pathology: At autopsy, the body was that of an emaciated, 64-year-old male. The skin of the face and the dorsums of the hands

and forearms showed increased pigmentation. However, the autopsy was performed on August 20, and excess pigmentation is not uncommon at that time of the year. The atrophic scars with serpiginous borders on the right sides of the face and neck and on the dorsum of the left hand were attributed to the previous blastomycotic skin lesion.

There were some filmy pleural adhesions over the upper and middle lobes of the right lung. The heart weighted 250 Gm.—a rather small amount—and there was essentially no atherosclerosis in the heart. In addition to the pleural adhesions, there was emphysema to a considerable degree. Fibrosis was diffuse in the lower lobes, but tended to be somewhat nodular in the upper lobes. There was no cavitation, but microcysts were described, and these were probably from emphysema, rather than from a breakdown in any other granulomatous lesions. The spleen was small. There was a Meckel's diverticulum. The liver was also smaller than normal, with some pericholangitis and focal areas of fibrosis in the portal canals. These were not true granulomas, although they may have been the scars of prior granulomatous inflammation.

As a matter of fact, there was no adrenal tissue visible grossly. The combined weight of the masses in the region of the adrenal glands was about 40 Gm., and a thorough search in those areas disclosed nothing that resembled adrenal tissue. Microscopically, one tiny possible focus of zona fasciculata was all the tissue that even came close to looking like adrenal gland in the multiple sections which were taken through this granulomatous inflammation.

Both kidneys were small, the right and left ones weighing 90 and 100 Gm., respectively, in contrast with the normal weight of 150 Gm. But the anatomical changes were primarily those of arteriosclerosis, rather than of arteriolosclerosis. The prostate showed rather acute along with some subacute cellulitis, and Pseudomonas aeruginosa was cultivated from the lesion in the prostate. In the right seminal vesicle, a grayish, pasty, necrotic granulomatous lesion was found, which resembled the one found in the adrenal gland. In the prostate, an old, hard focus of necrotic granuloma was surrounded by a rim of bone, the metaplasia being so nearly complete that bone marrow was being formed. The right epididymis was fibrotic, but instead of being a residual of a granulomatous inflammation like the fibroses encountered elsewhere, this fibrosis was different. In my opinion, the patient had had an epididymitis from some other cause, and it had healed.

And so this was a case of systemic blastomycosis, with death due primarily to chronic adrenal insufficiency. The lungs, skin, adrenals, prostate and seminal vesicles had certainly been involved at different times during the course of the disease. The pulmonary emphysema and fibrosis were undoubtedly the end result of the diffuse granulomatous pulmonary infection.

I should like to know whether Blastomycetes were cultivated during the patient's first hospital stay. They were? That fact isn't mentioned in the protocol.

Well, I might comment on our failure to cultivate the organism on his final admission. Many of you will recall that some months ago we held a CPC on a case of disseminated histoplasmosis. We were unable to cultivate the Histoplasma, although on morphologic grounds we were certain that Histoplasma was the organism involved.* On going over the laboratory information once again, we found that Pseudomonas aeruginosa was present in all of the tissue in which the fungus was also present, and Dr. McKee explained at that time that Pseudomonas produces a very powerful antifungal antibiotic that killed the Histoplasma whenever we attempted to cultivate it. Dr. McKee tells me that he thinks the same thing happened in the case we are discussing today.

This is a situation which has not been written up in the literature, so far as I know. Those of you who may, in the future, have difficulty in culturing mycotic organisms will want to remember the possibility that Pseudomonas aeruginosae may be inhibiting their growth. Dr. McKee says he now knows of a way of getting around the antibiotic that the organism puts out.

Dr. Sheets has alluded to "giant forms of histoplasmosis." In 1953, Dr. McKee, Dr. Stamler and I wrote a paper that we thought would serve as an obituary for that problem, but it keeps springing to life from time to time. About then, there were many reports of "small forms of Blastomyces" and of "giant forms of Histoplasma," and to bring the issue into focus the AMERICAN JOURNAL OF CLINICAL PATHOLOGY published a series of three papers on the matter.** The first of them dealt with "small forms of Blastomyces," the second with "giant forms of Histoplasma" and the third, our paper, with "dual infection was Histoplasma and Blastomyces." Our case, again, was one on which a CPC had been held—that of a man who had died from Addison's disease because his adrenals had been completely replaced by granulomatous lesions. Both Blastomyces and Histoplasma were cultivated from the adrenal glands. Cultural proof for the abnormal forms has been altogether lacking.

Dr. Walter Kirkendall, Internal Medicine: In what other disease do you see hearts of this size? Do you see them in people who have had malnutri-

* State University of Iowa College of Medicine, Clinical Pathologic Conference. J. IOWA M. SOC., 48:158 *et passim*, (Mar.) 1958.

** Tuttle, J. G., Lichtwardt, H. E., and Altschuler, C. H.: Systemic North American blastomycosis: report of case with small forms of Blastomycetes. AM. J. CLIN. PATH., 23:890-897, (Sept.) 1953.

Schwarz, J.: Giant forms of Histoplasma capsulatum in tissue explants. *Ibid.*, 898-903.

Layton, J. M., McKee, A. P., and Stamler, F. W.: Dual infection with Blastomyces dermatitidis and Histoplasma capsulatum. *Ibid.*, 904-913.

tion from a neoplasm without adrenal-gland involvement?

Dr. Emory D. Warner, Pathology: It depends upon how big this man was. A heart weighing 250 Gm. is pretty small for simple atrophy to have produced in a patient of average size. I can't help being a little suspicious of that weight, for the x-ray film looked as though the heart was too small to weigh 250 Gm.

Dr. Layton: After seeing the x-ray, I wondered whether the pericardium had been removed before weighing.

What was the immediate cause of death? In other words, why did the patient sweat when he woke up, and why did he die when he did, rather than two hours earlier or later? I don't know.

Dr. Hamilton: Paralysis does occur in individuals with Addison's disease, and it may quickly involve the muscles of respiration. We had such a patient about eight years ago. She came to the hospital with the complaint of falling uncontrollably to the floor. She had untreated Addison's disease, and because we were trying to be "very complete," we were giving her all of the tests. While we were doing a glucose tolerance test, she developed respiratory arrest. She recovered after we had breathed her manually and had administered glucose, plasma and sodium chloride. I think a similar respiratory failure may have been the immediate cause of death in the patient whom we have been discussing today.

Dr. Layton: Yes, in other words you are saying that chronic adrenal insufficiency can suddenly become acute. But exactly what happened at the particular instant, rather than two hours earlier or later?

Dr. Seebohm: Dr. Bradbury, would you like to comment on the correlation between the hormonal assay before death and the anatomical findings after death?

Dr. Bradbury: The 17-ketosteroid is the easiest and at present the only locally available test of adrenal activity. I probably should have pointed out that the 17-ketosteroid precursors are from the fasiculata or reticularis, whereas aldosterone, which controls electrolyte balance, is from the glomerulosa. Furthermore, ACTH acts only on the fasiculata and reticularis, and has no effect on the glomerulosa. Thus, even if we had obtained valid 24-hour urine, the test as done with ACTH would not have measured the glomerulosa.

Biochemically, a test for Addison's disease would be an aldosterone determination. Clinically, the safest procedure is a trial on DOCA plus cortisone or fluorohydrocortisone, which has a double (electrolyte and glucocorticoid) action. A dramatic improvement while on that therapy would constitute a rather conclusive diagnostic procedure.

In retrospect, it is interesting that the caseous necrosis did appear to be subcapsular, and the only recognizable tissue was fasicularis. No glomerulosa; no aldosterone; poor sodium control; *ergo,* Addisonian crisis.

SUMMARY OF NECROPSY FINDINGS

The case appeared to be one of systemic blastomycosis, with death due primarily to chronic adrenal insufficiency. The adrenals were completely replaced by chronic, infectious granulomata, with fibrocaseation, Fungi morphologically consistent with Blastomyces dermatitidis were numerous in the lesions. In view of the history, the patchy pulmonary fibrosis probably represented healed granulomatous lesions. Although no Blastomycetes were cultivated from the tissues at autopsy, the morphology of the organism, together with the previous cultivation of Blastomyces dermatitidis from the prostatic lesion, would seem to warrant a diagnosis of blastomycosis.

NECROPSY DIAGNOSES

1. Blastomycosis, with involvement of lungs, skin, adrenals and prostate
2. Chronic adrenal insufficiency (Addison's disease)
3. Arterionephrosclerosis
4. Pulmonary emphysema and fibrosis.

"SILENT" MYOCARDIAL INFARCTION

The number of unsuspected healed myocardial infarctions found in a study of 5,000 autopsy reports has been called "astonishing" by the two Michigan doctors who made the study.* An analysis of 5,000 consecutive autopsies performed at Wayne County General Hospital between 1945 and 1955 showed 588 myocardial infarctions, 175 of which had been unexpected. The incidence of old, healed "silent" infarcts in the study group was thus 3.5 per cent.

This finding indicates that a myocardial infarct is often well tolerated by the patient, the doctors said.

The average age at death of these 175 patients with old, unsuspected infarcts was 71 years. They had lived out their expected life spans, despite an unsuspected heart disorder. Principal causes of death had been pulmonary disease (47), cardiac disease (39), neoplastic disease (34), vascular disease (31), and miscellaneous (24). In a majority of the records analyzed, the presenting complaint or the predominant physical findings on admission had pointed to some non-cardiac condition.

The authors recommended that patients over 50 who enter hospitals with ailments other than heart disease should be examined for silent myocardial infarcts if such conditions as hypertension, cerebral thrombosis, senility, diabetes, gangrene or hypothyroidism exist.

* Gould, S. E., and Cawley, L. P.: Unsuspected healed myocardial infarction in patients dying in a general hospital. AMA Arch. Int. Med., **101**:524-527, (Mar.) 1958.

Low Dosage KYNEX for G.U. Infections

Unusual Antibacterial and Anti-infective Properties. More rapid absorption . . . higher and better sustained plasma concentrations . . . more soluble in acid urine than other sulfonamides . . . freedom from crystalluria and absence of significant accumulation of drug, even in patients with azotemia. [1]

Unprecedented Low Dosage. Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. (1 to 2 tablets) maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides —a notable asset in prolonged therapy. [2]

New Control Over Sulfonamide-sensitive Organisms. KYNEX maintains the prolonged, high tissue concentrations of primary importance in treatment of urinary infections . . . a therapeutic asset toward preventing manifest pyelonephritis as a complication of persistent bacteriuria during pregnancy and puerperium. Maintenance of sterile urine in such patients was accomplished with 1 tablet of KYNEX daily. [3]

KYNEX*

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Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

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Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

References: 1. Grieble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49,1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

*Reg. U. S. Pat. Off.

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Coming Meetings

In State

May 21-22	**Annual Meeting, Iowa Heart Association.** Hotel Fort Des Moines, Des Moines
June 2-6	**Internal Medicine (American College of Physicians).** SUI College of Medicine, Iowa City

Out of State

May 1-3	**Annual Meeting, Hawaii Medical Association.** Honolulu
May 2	**Massachusetts Society of Anesthesiologists.** New England Medical Center, Boston
May 2-3	**Counseling of Parents of Handicapped Children (Woods Schools, Langhorne, Penna.).** Mayo Memorial Auditorium, U. of Minnesota, Minneapolis
May 3	**Annual Meeting, Group Psychotherapy Assn. of Southern California.** Chapman Park Hotel, Los Angeles
May 3-4	**International Union for Health Education of the Public.** Brussels, Belgium
May 3-4	**Third Annual Convention, Western Gerontological Society. Hotel Statler,** Los Angeles
May 4	**American Federation for Clinical Research.** Chalfonte-Haddon Hall, Atlantic City
May 4-6	**Arkansas Medical Society.** Arlington Hotel, Hot Springs
May 5	**American Society for Clinical Investigation.** Haddon Hall, Atlantic City
May 5-7	**Clinical Physical Medicine.** U. of Colorado Medical Center, Denver
May 5-7	**Annual Meeting, Louisiana State Medical Society.** Washington-Youree Hotel, Shreveport
May 5-9	**Applied Epidemiology.** U.S P.H.S. Communicable Disease Center, Atlanta
May 5-9	**Annual Meeting, Kansas Medical Society.** Allis Hotel, Wichita
May 5-9	**Electrocardiography for GP's and Specialists.** University of Minnesota Center for Continuation Study, Minneapolis
May 5-9	**Recent Advances in Therapeutics.** University of Michigan, Ann Arbor
May 5-9	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
May 5-16	**Clinical Use of Radioisotopes.** University of Tennessee College of Medicine, Memphis
May 5-17	**Two-Week Course in General Surgery.** Cook County Graduate School of Medicine, Chicago
May 5-23	**Cardiology.** N.Y.U., N.Y.C.
May 6-7	**Annual Meeting, Association of American Physicians.** Haddon Hall, Atlantic City
May 6-8	**Surgery in Acute Trauma.** Brooke Army Medical Center, Ft. Sam Houston, Texas
May 7	**Casts, Splints and Bandages.** U.C.L.A., Los Angeles
May 7	**Third Annual Trauma Day.** University of Nebraska College of Medicine, Omaha
May 7	**Annual Meeting, Medical Society of the District of Columbia.** Washington, D. C.
May 7-8	**Clinical Neurology.** University of Michigan, Ann Arbor
May 8-9	**Allergy Conference.** University of Nebraska College of Medicine, Omaha
May 8-9	**American Pediatric Society.** Hotel Traymore, Atlantic City
May 9	**Spring Meeting, Minnesota Surgical Society.** Rochester
May 9-10	**Second AMA Legal Conference.** Drake Hotel, Chicago
May 9-11	**American Psychoanalytic Association.** Hotel Fairmont, San Francisco
May 10-14	**Annual Meeting, Florida Medical Association.** Hotel Americana, Miami Beach
May 11-15	**Congress of the French Society of Ophthalmology.** Paris
May 11-15	**Joint Meeting of the American, British and Canadian Orthopaedic Associations.** Shoreham Hotel, Washington, D.C.
May 12-13	**American Venereal Disease Association.** Sheraton Hotel, Philadelphia
May 12-14	**Electrocardiography II.** Tufts University School of Medicine, Boston
May 12-16	**Annual Meeting, American Psychiatric Association.** Civic Auditorium, San Francisco
May 12-16	**General Surgery.** Cook County Graduate School of Medicine, Chicago
May 12-16	**Cardiovascular Diseases in the Child and in the Adult.** University of Illinois College of Medicine, Chicago
May 12-16	**152nd Annual Meeting, Medical Society of the State of New York.** Hotel Statler, New York City
May 12-17	**Proctology for GP's.** University of Minnesota Center for Continuation Study, Minneapolis
May 12-18	**Topics in Clinical Medicine.** Johns Hopkins Hospital, Baltimore
May 12-23	**Advanced Course in Urology for Specialists.** N.Y.U., N.Y.C.
May 12-23	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
May 12-23	**Management of Allergic Diseases (Institute of Allergy).** Roosevelt Hospital, New York City
May 12-23	**Course V, Pediatrics.** Cook County Graduate School of Medicine, Chicago
May 12-24	**Technic in General Surgery, Course I.** Cook County Graduate School of Medicine, Chicago
May 13-15	**Diagnosis & Treatment of Cancer.** City of Hope, Duarte, California
May 14-15	**Anemia, Thrombocytopenic Purpura, Lymphomas, and Acute and Chronic Leukemias.** Indiana University School of Medicine, Indianapolis
May 14-16	**Interpretation of Laboratory Tests.** U. of California, San Francisco
May 15-17	**Basal Ganglia Surgery for Involuntary Movement Disorders.** New York University-Bellevue Medical Center, N.Y.C.
May 15-18	**European Federation of International College of Surgeons.** Brussels, Belgium
May 16-17	**Sixth Annual Seminar, Children's Hospital of the East Bay.** Claremont Hotel, Berkeley
May 16-17	**Congress of the International Association for the Study of the Bronchii.** Munich
May 16-17	**Orthopedic Surgery and Fractures.** U. of California, San Francisco
May 16-18	**22nd Annual Meeting, American Academy of Applied Nutrition.** Huntington-Sheraton Hotel, Pasadena
May 16-18	**American Association for Thoracic Surgery.** Hotel Statler, Boston
May 17	**Problems of Malpractice.** Hotel Statler, Los Angeles
May 17-18	**American Otological Society.** Hotel Fairmont, San Francisco
May 17-20	**Annual Meeting of the South Dakota Medical Society.** Huron
May 17-22	**Divisional Meeting of American Psychiatric Association.** Hawaiian Village, Honolulu
May 18-23	**Joint Annual Meeting, Canadian Public Health Assn. and Western Branch, Am. Public Health Assn.** Vancouver
May 19-20	**American Laryngological Association.** San Francisco
May 19-21	**53rd Annual Meeting, American Trudeau Society.** Convention Hall, Philadelphia
May 19-21	**American Gynecological Society.** Grove Park Inn, Asheville, North Carolina
May 19-22	**Fifty-fourth Annual Meeting of the National Tuberculosis Association and the Fifty-third Annual Meeting of the American Trudeau Society.** Convention Hall and Bellevue-Stratford Hotel, Philadelphia
May 19-23	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
May 19-23	**Mycotic Infection.** Walter Reed Army Medical Center, Washington, D.C.
May 19-23	**Dermatology & Syphilology for Dermatologists.** N.Y.U., N.Y.C.
May 20-22	**Annual Meetings, Massachusetts Medical Society and New England Medical Society.** Hotel Statler, Boston

May 20-23	**Annual Meeting, Illinois State Medical Society.** Sherman Hotel, Chicago
May 20-24	**Seventh Annual Meeting, American College of Cardiology.** Chase-Park Plaza Hotel, St. Louis.
May 21-23	**American Broncho-Esophagological Association.** San Francisco
May 21-23	**American Laryngological, Rhinological and Otological Society.** Mark Hopkins Hotel, San Francisco
May 22-24	**Annual Meeting, Minnesota State Medical Association.** Leamington Hotel, Minneapolis
May 22-24	**Surgery for Surgeons.** University of Minnesota Center for Continuation Study, Minneapolis
May 23-24	**Collagen Diseases.** U.C.L.A., Los Angeles
May 23-25	**Annual Meeting and Scientific Session, California Heart Association.** Hacienda Hotel, Fresno
May 23-25	**Office Orthopedics in General Practice.** Hotel Statler, Los Angeles
May 24-25	**Geriatrics, With Emphasis on Heart Disease and Psychosocial Problems of Later Life.** Washington University, St. Louis
May 25-29	**International College of Surgeons, New York State Surgical Division Meeting.** Concord Hotel, Kiamesha Lake, New York
May 25-31	**59th Annual Meeting, World Congress of Gastroenterology and American Gastroenterological Association.** Sheraton-Park and Shoreham Hotels, Washington, D.C.
May 26-27	**Rheumatic Heart Disease, Arteriosclerosis and Congestive Failure.** Indiana University School of Medicine, Indianapolis
May 26-30	**Pediatrics for Pediatricians and GP's.** Children's Hospital, Philadelphia
May 26-30	**Internal Medicine.** University of Tennessee College of Medicine, Memphis
May 26-June 4	**Eleventh World Health Assembly (World Health Organization).** Minneapolis
May 27-31	**Medical Otolaryngology, Headaches and Allergy.** Hansel Foundation, St. Louis
May 28-29	**Opthalmic Therapy.** Indiana University School of Medicine, Indianapolis
May 28-30	**American Ophthalmological Society.** The Greenbrier, White Sulphur Springs, West Virginia
June 2-4	**Practical Pediatric Hematology.** U. of Pennsylvania Graduate School of Medicine, Philadelphia
June 2-6	**Advances in Medical Library Practice (Medical Library Association, 57th Annual Meeting).** Hotel Kahler, Rochester, Minnesota
June 2-6	**Physiological Basis of Clinical Electrocardiography.** Alumni Hall, N.Y.U., N.Y.C.
June 2-7	**Neurological Medicine (Harvard Medical School).** Boston City Hospital, Boston
June 2-13	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 2-13	**Pediatrics, III (Harvard Medical School).** Massachusetts General Hospital, Boston
June 2-14	**Course I in Surgical Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
June 2-20	**Trudeau School of Tuberculosis and Other Pulmonary Diseases, Forty-second Session (Trudeau Foundation and the Hyde Foundation).** Saranac Lake, New York
June 2-27	**Clinical Use of Radioactive Isotopes (Columbia University College of Physicians and Surgeons).** Mt. Sinai Hospital, New York
June 3-15	**Bronchology, Esophagology and Laryngeal Surgery.** U. of Pennsylvania Graduate School of Medicine, Philadelphia
June 5-6	**Blood Group Incompatibilities and Erythroblastosis Fetalis.** U. of Pennsylvania Graduate School of Medicine, Philadelphia
June 5-7	**Emotional Problems in Office Practice (U. of California Residential Conference Center).** Lake Arrowhead, California
June 6	**Annual General Practice Symposium (Wisconsin Academy of General Practice).** Hotel Schroeder, Milwaukee
June 6-7	**Collagen Diseases.** U. of California, Los Angeles
June 6-7	**Ear-Nose-Throat.** U. of California, San Francisco
June 9-10	**Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago
June 9-13	**Hematology for Internists.** U. of Rochester Medical Center, Rochester, New York
June 9-13	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
June 9-13	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
June 9-14	**Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago
June 9-20	**Symposium on Modern Therapeutics in Internal Medicine.** N.Y.U., N.Y.C.
June 10-13	**Pediatric Metabolism and Endocrinology (Harvard Medical School).** Massachusetts General Hospital, Boston
June 10-14	**Anesthesiology.** U. of Pittsburgh School of Medicine, Pittsburgh
June 15-19	**Canadian Medical Association Annual Meeting.** Halifax, N. S., Canada
June 15-20	**International Association for Child Psychiatry.** Lisbon, Portugal
June 16-18	**Eighty-third Annual Meeting of the American Neurological Association.** Atlantic City
June 16-18	**Clinical Pathology for General Physicians.** U. of Minnesota, Minneapolis
June 16-18	**Techniques of Hypnosis.** U. of California, Los Angeles
June 16-19	**Duke Medical Postgraduate Course.** Duke University School of Medicine, Durham, North Carolina
June 16-20	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
June 16-20	**Internal Medicine (American College of Physicians).** U. of California School of Medicine, San Francisco
June 16-21	**Clinical Hematology for Internists and Pathologists.** U. of Colorado Medical Center, Denver
June 16-21	**Breast and Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago
June 16-27	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
June 16-July 26	**Internal Medicine III (Harvard Medical School).** Massachusetts General Hospital, Boston
June 17-19	**Annual Meeting, American Goiter Association.** St. Francis Hotel, San Francisco
June 18-20	**Advanced Techniques and Application of Hypnosis,** U. of California, Los Angeles
June 18-22	**Twenty-fourth Annual Meeting, American College of Chest Physicians.** San Francisco
June 20-22	**International Fertility Association.** Windsor Hotel, Montreal
June 22-28	**Second World Congress of the International Federation of Gynaecology and Obstetrics.** Queen-Elizabeth Hotel, Montreal
June 23-24	**Management of Chronic Kidney Disease.** N.Y.U., N.Y.C.
June 23-25	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
June 23-25	**Recognition and Treatment of Heart Disease.** N.Y.U., N.Y.C.
June 23-27	**Acute Neurological Problems of General Practice.** N.Y.U., N.Y.C.
June 23-27	**Annual Meeting, American Medical Association.** San Francisco
June 23-27	**Advanced Course in Electrocardiography.** Cook County Graduate School of Medicine, Chicago
June 23-27	**Radium Therapy.** Cook County Graduate School of Medicine, Chicago
June 24-29	**Roentgen Diagnosis (U. of Cincinnati College of Medicine).** Cincinnati General Hospital, Cincinnati
June 25-26	**Management of Hypertension.** N.Y.U., N.Y.C.
June 25-July 1	**International Congress of Urology.** Stockholm, Sweden
June 26-28	**Peripheral Vascular Diseases.** U. of Pennsylvania Graduate School of Medicine, Philadelphia
June 26-28	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
June 27	**Physical Medicine and Rehabilitation (Western Reserve University).** Highland View Hospital, Cleveland
June 27-28	**Dissection of Thorax, Abdomen and Pelvis.** U. of California, Los Angeles
June 29-July 3	**American Proctologic Society.** Los Angeles
June 30-July 8	**International Association for Child Psychiatry.** Lisbon, Portugal

Editorials

WORLD MEDICAL ASSOCIATION

Especially at this time, when the World Health Organization is about to hold an international congress at Minneapolis—virtually next door to us—it seems especially appropriate that we caution Iowa doctors agianst confusing the World Health Organization with The World Medical Association.

Governments, rather than individual physicians are members of WHO, and because a majority of the governments which belong to it are operating systems of state-supported medical care, its bias is decidedly socialistic.

Unquestionably, WHO is accomplishing a great deal throughout the world, both in prophylaxis and in the eradication of plagues of various sorts, and its Minneapolis meeting that is to start on May 26 will be an interesting one. The Minnesota State Medical Association is acting as host for the gathering, and Mr. R. R. Rosell, the Minnesota executive secretary, tells us that international pageantry will be one of its attractive aspects.

But we want to put in a word for the world-wide organization of *private practitioners*—The World Medical Association. It is the group which, at the international level, represents the philosophy of the American Medical Association, the Iowa State Medical Society, and the 97 county medical societies in Iowa.

Within the United States, some 5,500 leading American physicians have formed a supporting group known as the United States Committee of The World Medical Association. President of the U. S. Committee is Dr. Austin Smith, of Chicago, editor of J.A.M.A., and its secretary-treasurer is Dr. Louis H. Bauer, of Hempstead, New York, a recent past-president of the AMA. In addition, Dr. Bauer has been secretary general of The World Medical Association since its founding in 1947.

The purposes of The World Medical Association and of its U. S. Committee are to work for the highest standards of medical care in all parts of the world; to defend and preserve the freedoms that are essential to good medical practice; to provide a forum for the solution of problems common to physicians the world over; and to promote world peace.

Each of us has an opportunity to play his part in this vital cause by becoming a member of the U. S. Committee of The World Medical Association. The AMA House of Delegates has urged that every member of AMA join the U. S. Committee. Annual dues are $10, and the Committee's headquarters are at 10 Columbus Circle, New York City 19. A form on which to apply for membership is to be found on page xxxvii of this issue of the JOURNAL.

The World Medical Association chairman for Iowa is Dr. Donald C. Conzett, of Dubuque.

OVERUTILIZATION OF INSURANCE BENEFITS

Early in April an unusual and important meeting took place in an Iowa city. The medical department of one of the largest New England insurance companies arranged it, and the firm's medical director and several of its home-office representatives were the hosts. Others present were the plant managers and personnel directors of four of the city's largest industries, a Blue Cross representative and about 10 doctors. Another guest was the national president of the Health Insurance Council, a group which includes the companies that write 90 per cent of all industrial health insurance policies. The Council was formed during the Truman-Ewing period, and it has been constantly active ever since. The Iowa meeting was the first of a national program of such meetings at the county level.

The problem for discussion was the extreme overutilization of insurance by employees. Statistics of the four local industries showed utilization exceeding 160 per cent of what had been anticipated, and one company showed overutilization despite an increase of about 250 per cent in premiums. Another company has already shown a loss of $108,000 in the first six months of its current fiscal year. The Blue Cross representative stated that his organization is having a similar experience in Iowa.

The representatives of both management and the insurance carriers pointed out that over-hospitalization, prolonged hospitalization and, occasionally, excessive charges by physicians had each contributed to the situation. The insurance spokesman recognized the difficulty which physicians face in policing any insurance program, and both he and the management representatives showed a good understanding of the doctors' problems in handling sick people and their families. Furthermore, insurance companies continue to urge free choice of physicians and to believe in cooperation with, rather than regimentation of, physicians.

Unfortunately, management makes little effort to separate physician costs from hospital costs when it talks about total medical expense.

One management representative pointed out that in his rather large group, a $25-deductible policy showed an increase in utilization of 131 per cent, even though the same group had previously been provided full coverage. Such evidence seems to indicate that overutilization cannot be deterred

through requiring the policyholder to pay a part of each bill.

The meeting reached no conclusions other than that perhaps insurance carriers, industrial managements and physicians should cooperate in seeking a solution to the problem. Whether such a grouping could remain cohesive in the face of union pressure is for the future to decide.

Since, percentagewise, Iowa is now an industrial state rather than an agricultural one, this problem sooner or later will disturb physicians generally. Certain it is that the physician's income, which is coming in ever larger proportions from insurance payments, will be more and more subject to outside pressures. Not only a "third party," but a "fourth party" and a "fifth party" will be concerned, each with its own particular focus. Thus, it seems that friendly cooperation among physicians, insurance companies and industrialists is altogether essential. Neither individually nor collectively can physicians neglect the interests of these other groups without fear of retaliation.

CURE FOR AN UNKNOWN DISEASE

During his recent stage appearances in Iowa, Victor Borge caused many chuckles with his story of a physician who was so brilliant that he invented a cure for a disease which hadn't yet been discovered. Actually, however, one of the most humbling aspects of medicine is that physicians have many "cures" for diseases of which they have little or no understanding. Diabetes mellitus is a good example. In spite of many years of research by well-endowed investigators, all that is known about it is that for some reason—or perhaps for many reasons—some bodies are unable to utilize carbohydrate, and as a result sugar is excreted in the urine. Insulin is known to be involved in carbohydrate metabolism, but where, why and how it is involved, we are by no means sure.

Scientists are in the habit of arranging things in more or less elaborate classifications. Thus, patients who are unable to use sugar properly are said to have "diabetes," and such people are further divided into those who need a great deal of insulin, and those who need little, if any. It has been found that young, thin diabetics need more insulin than old, fat ones do, and except for those unusual individuals whose glucose intolerance is based on such diseases as hyperthyroidism, acromegaly or Cushing's disease, this classification works reasonably well.

When the sulfonylurea derivatives, Orinase and Carbutamide (BZ55), were introduced in large-scale clinical trials about two years ago, they were viewed as "oral insulin," considerably weaker than the real thing, but similar in action. Many still regard them thus. In part, this view was encouraged by the observed fact that if Orinase is to be helpful to a patient, he needs a small amount of endogenous or exogenous insulin, too. Orinase does not seem to delay destruction of insulin or to enhance its production in any great degree. There remains the possibility that Orinase may facilitate the action of insulin in some way, but since the action of insulin is poorly understood, approaches to the problem from that direction have remained somewhat confused.

An additional and rather attractive possibility is that "juvenile" and "adult" diabetes may some day be found to constitute diseases as entirely different from one another as are typhoid and paratyphoid fevers. Then we shall recognize that during the intervening years we have had a palliative for an ill-defined disease, if not a "cure" for an "unknown" one, and medicine will have taken another limping step forward.

MRS. DOLK RESIGNS

The JOURNAL regrets having to report that Mrs. Dorothy Dolk has announced her intention of leaving the employ of the Iowa State Medical Society on July 1. With only a few brief interruptions, she has served the organization in various capacities throughout the past 17 years.

For a considerable length of time several years ago, she was assistant editor of this publication, she has been in charge of scientific and technical exhibits at the annual meetings, and she has kept the Society's financial accounts. During the last four years, as assistant executive secretary, one of Mrs. Dolk's principal responsibilities has been that of staff liaison to the ISMS Committee on Legislation, an especially busy group. Most members of the Society are well acquainted with her, and all of them have appreciated her competence and her devotion to the interests of organized medicine.

We are sure we express the sentiments of all our readers in wishing Mrs. Dolk the best of everything for the future.

AMA PAMPHLET ON DRIVER FITNESS

The AMA Committee on Medical Aspects of Automobile Injuries and Deaths has prepared a pamphlet which urges drivers to seek the advice of their physician if they are in doubt about their fitness to operate a motor vehicle. It is designed for distribution through doctors' offices.

The booklet contains information about conditions that can adversely affect driving skills, such as emotional upsets, driver attitudes, sleepiness, medicines, faulty vision, certain nerve and heart disorders, diabetes, old age and alcohol.

The booklet is currently available through the Association of Casualty and Surety Companies, 60 John Street, New York City 38, and the price is $4.60 per 100, regardless of quantity.

President's Page

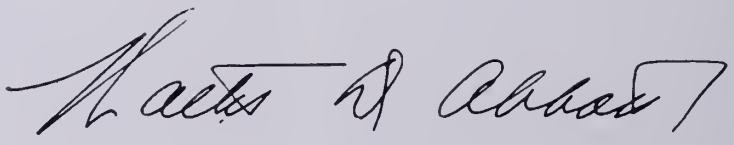
REGIONAL MEETINGS OF PHYSICIANS

In order that our organization may be ready to deal with problems affecting the best interests of the public and our profession, a number of meetings are to be held during the next year in conveniently located towns throughout the state, at which ISMS officers and committee chairmen will report to member doctors on the Society's activities and plans in such fields as legislation, medical services and public relations. In addition, officers of Blue Shield will review and answer questions about the present status of the prepayment surgical and medical care program, about its new contracts, its fee schedules and the current utilization of benefits.

These meetings are intended to supplement the JOURNAL, the news bulletins and other communications, and the personal contacts of the Society's field representatives and those of Blue Shield, in welding physicians into an effective force. These small gatherings are expected to replace and to be an improvement upon the annual conference of county society officers which has been held in Des Moines in the fall of each of the last three years.

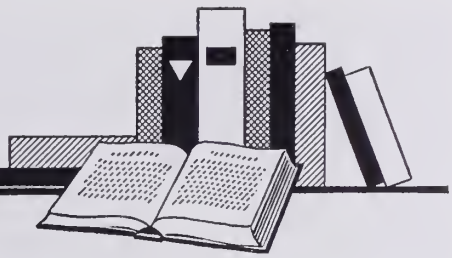
The Society is receiving good cooperation from a majority of its members, but "good" cooperation from a "majority" is not enough. It must have *optimum support* if it is to cope successfully with the serious problems that face organized medicine. To secure that support, there can be no better method than that of letting key men—doctors of medicine particularly active in State Society affairs—go into all parts of the state to talk with rather small groups of physicians.

And the officers and committee chairmen of the State Society and Blue Shield will go to those meetings to listen as well as to speak. Thus, individual members will not only receive information, but will be given a hearing.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

CIBA FOUNDATION SYMPOSIUM ON THE CHEMISTRY AND BIOLOGY OF MUCOPOLYSACCHARIDES, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Maeve O'Connor*, B.A. (Boston, Little, Brown and Company, 1958. $8.50).

FAT CONSUMPTION AND CORONARY DISEASE: THE EVOLUTIONARY ANSWER TO THIS PROBLEM, by *T. L. Cleave*, M.R.C.P. (New York City, The Philosophical Library, Inc., 1958. $2.50).

YOU CAN INCREASE YOUR HEART-POWER, by *Peter J. Steincrohn*. (Garden City, N.Y., Doubleday & Company, Inc., 1958. $4.95).

BOOK REVIEWS

DIABETES AS A WAY OF LIFE, by *T. S. Danowski*, M.D. (New York City, Coward-McCann, Inc., 1957. $3.50).

This 177-page book has been written for the diabetic patient by a recognized expert of vast experience. Previous books of this kind, in my opinion, have often been too morbid and scary, and as a result the patient has been inclined to put such a volume on the shelf to spare himself the discomfort of reading it. Danowski's book doesn't frighten the patient, yet it gives him all the facts he should possess for the intelligent management of his diabetes. For some patients it is probably too detailed, but it will provide answers to the questions of curious and intelligent individuals.

The chapter on "Social Aspects of Diabetes" appeals to this reviewer as something that has been needed for a long time. It suggests how the patient should manage his diet when he is dining out, when snacks are served at an evening party, and when he is traveling.

Altogether, this is a refreshing improvement upon earlier attempts at dealing with the problem of educating the diabetic to the point where he may be put in full charge of his management, except for occasional assistance from his physician.—*Arthur G. Lueck*, M.D.

OFFICE GASTROENTEROLOGY, by *Albert F. R. Andresen*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $14.00).

Dr. Andresen, a well known and colorful figure in the field of gastroenterology, has written a new monograph on diseases of the intestinal tract and allied organs. He has been a teacher for many years, and this new book could be classified as a "fancy syllabus." The material is arranged in an orderly, well-outlined fashion, with brief discussions on each topic. The author and the publisher have included no bibliography, on the grounds that "the usual long list of references in books are probably never used by over 90 per cent of readers, especially the busy practitioners for whom this book has been written." The volume includes sections on the "Plan of Attack on Gastrointestinal Diseases," "Diseases Affecting the Entire Gastrointestinal Tract," "Diseases of Different Parts of the Gastrointestinal Tract," "The Liver and the Biliary Tract," and "General Diseases With Manifestations in the Gastrointestinal Tract."

The book is well written, in a scientific style, and is therefore easy to read, but being a rather brief monograph, it doesn't go into great detail on many matters. The book reflects Dr. Andresen's vast experience on matters gastrointestinal, and anyone knowing him will realize he couldn't write a book without revealing his own rather definite opinions. His idea that "today too much emphasis is being placed on prenatal, infantile, and childhood stresses as causes of disturbances in later life" may not be destined for popularity, but quite typically the statement shows definitely where the author stands.

Dr. Andresen has long been a "thumper" for gastrointestinal allergy, and he spends 19 pages on that hobby, limiting his discussion of psychosomatic disturbances of the gastrointestinal tract to three perfunctory pages.

He is a great believer in focal infection as a cause of ulcer flare-ups, and he says: "I have never observed the development of [recurrences subsequent to healing] except in cases in which some new infection had developed or an old one had recurred, and subsequent care of these would then give excellent results."

In brief, the book is interesting to read, although one may not agree with many of the author's statements. It is intended for "busy practitioners" and students.—*Daniel A. Glomset*, M.D.

A TEXTBOOK OF HISTOLOGY, SEVENTH EDITION, by *Alexander A. Maximow*, M.D., and *William Bloom*, M.D. (Philadelphia, W. B. Saunders Company, 1957. $11.00).

Maximow and Bloom have been well known names in the field of histology for a long time, and their text has been widely used by medical students and others in the field of microscopic anatomy. The original text was completed by Bloom in 1930, Maximow having died in 1928.

The degree of doctor of medicine was conferred on Maximow by the Imperial Military Medical Academy of St. Petersburg in 1899. He studied embryology under Hertwig in Berlin, and while studying under Ziegler in Freiburg, he completed the first of his classic studies on inflammation. He left Russia for good in 1922, and from then until his death he occupied the chair of professor of anatomy at the University of Chicago. He was responsible for much of the earlier work in normal and pathologic histology and histogenesis of the blood and connective tissues.

Dr. Bloom has been a member of the faculty of the

University of Chicago since 1926, and has been a professor of anatomy since 1941. His work has principally concerned tissue culture, hematology, histology, histophysiology of bone and radiobiology. He has been associated with the Atomic Energy Commission and other governmental and private research organizations.

In their textbook, the authors not only have described and illustrated the microscopic structure of the various organs of the body, but have also, where applicable, discussed submicroscopic analysis and related physiology. Many electromicrographs have been added in this edition of their textbook, and each chapter has been revised by an authority on the particular subject.

The first chapter is concerned with the structure, chemical composition and dynamics of the cell. Fixation and staining are discussed, and color plates illustrate the staining reactions with combinations of various fixatives and stains. A newly-revised section on cell division is included. The following chapters deal with the various organs and tissues of the body.

The 265 color illustrations and 1,082 black-and-white ones have been well selected, and are so placed as to enhance the text. The bibliography is in unitized form at the ends of the chapters.

The subject is presented in an easily-read, lucid form. This latest edition not only perpetuates the high quality of previous editions, but with the current revisions, it will continue to maintain its stature as one of the finest works on histology.—*Francis C. Coleman,* M.D.

PSYCHOPATHIC PERSONALITIES, by *Harold Palmer,* M.D. (New York City, Philosophical Library, Inc., 1957. $4.75).

According to its "dust cover," Dr. Palmer's latest book is "A Study of the Nature and Character of the Major Mental Disturbances"—a laudable and worthwhile subject for a book, if it could be covered in a book. The author's preface indicates his desire to expose, delineate and characterize certain clinical syndromes which, if and when possessed by some individuals, might prove antithetical to the western world. Again, this is a laudable and admirable purpose—if it could be achieved in a book.

This two-fold, rather difficult feat has been attempted in a volume of fewer than 200 pages. Needless to say, it does not accomplish its purpose.

As a matter of fact, in his apparent delight in his work, the author seems to lose interest in his announced purpose. But his interest and liking for his job is communicated to the reader, and the volume makes pleasant reading.

His various proposals as regards etiology and therapy are fascinating and thought-provoking. So far as this reviewer could ascertain, there is no systematic approach to mental illness—no attempt to unify etiology and no attempt at a systematic classification such as we are accustomed to find in American medicine.

The style of writing is interesting, facile and readable, and the author is inclined—as who isn't?—to make positive statements from debatable premises. Thus, the reader must, as always, take care to separate provable fact from opinion.

A generally worthwhile book.—*Howard V. Turner,* M.D.

THE 1957-1958 YEAR BOOK OF DRUG THERAPY, ed. by *Harry Beckman,* M.D. (Chicago, The Year Book Publishers, Inc., 1957. $7.50).

The Year Book Series has found a well-deserved place in the libraries available to the medical profession. This volume is edited by a respected physician who is well known for his contributions to therapeutics. The book is divided into body systems, each division being made up of abstracts from journals of the best articles dealing with new drugs. A section on tranquilizers and stimulants is helpful to those who are confused by the barrage of ads and claims for various drugs.

As usual, the reviewer can heartily recommend this issue as an excellent reference item for physicians' bookshelves.—*Arthur G. Lueck,* M.D.

AIDS TO ANESTHESIA, FOURTH EDITION, by *Victor Goldman,* M.R.C.S. (Baltimore, Williams & Wilkins Company, 1957. $3.50).

In the preface to this fourth edition, Dr. Goldman states that the volume is only an "aid" and not an exhaustive reference book. However, in its 25 chapters it covers most of the subjects dealt with by other texts on anesthesia. There are the usual chapters on anatomy, physiology, pharmacology, stages of anesthesia, selection of methods and preparation of the patient. There are chapters which discuss in detail the many methods and agents used, including inhalation, and intravenous, rectal, local and regional technics. In addition, there are chapters on muscle relaxants, dental anesthesia and the special problems of anesthesia in the tropics.

The author also includes a brief synopsis of the history of anesthesia, biographies of the early workers in the field, and a complete appendix of useful information.

Above all, this book clearly demonstrates qualities many of us admire in the British—qualities such as efficiency, avoidance of waste and a consciousness of the fact that data become obsolete long before the books containing them can be worn out. Exemplifying those virtues, Dr. Goldman has given us a small book such as can conveniently be carried in one's pocket. Comparatively inexpensive paper has been used. The illustrations are crude, judged by the standards of this country, but they serve their purpose fully as well as the more costly ones to be found in our American books. These economies are altogether praiseworthy, for as changes occur in the science of anesthesiology, one must not hesitate to replace a volume of this type as soon as a new edition is published.

To summarize, although the book is not intended as a complete reference work, it is, nevertheless, a very useful one.—*E. Parish Lovejoy,* M.D.

GASTROINTESTINAL OBSTRUCTION, by *Meyer O. Cantor,* M.D., and *Roland P. Reynolds,* M.D. (Baltimore, The Williams & Wilkins Company, 1957. $18.00).

The authors of this new book have read several thousands of the 18,000 articles on intestinal obstruction that are contained in the literature. They have

attempted to summarize, abbreviate and put meaning into those articles. The table of contents includes such topics as basic embryology, anatomy and physiology of the intestinal tract; types of obstruction of the stomach, small bowel and large bowel; incidences for the various age groups; x-ray diagnosis; use of gastrointestinal decompression tubes (particularly the long tubes); use of parenteral fluids; surgical and nursing technics; and the use of drugs. Many reproductions of photomicrographs and x-rays are scattered through the text.

It should be the task of a critic to compliment an author and to criticize him where pertinent. This particular book is so painstakingly done that one is at a loss to know what to criticize. Dr. Cantor has, of course, been interested in the "long tube" for years, and in consequence he is to be forgiven for writing a rather detailed chapter on its use. Yet, despite his enthusiasm for the technic, he has been careful to list the contraindications and possible complications of its use, and has warned that it must never be considered as a substitute for surgery. Surgical technics are not taken up in detail, but the fundamentals of cause and treatment are presented adequately.

The book has been written so as to be of equal value for general practitioners, internists and surgeons —certainly no inconsiderable accomplishment!— *Daniel A. Glomset*, M.D.

PRACTITIONERS' CONFERENCES HELD AT THE NEW YORK HOSPITAL—CORNELL MEDICAL CENTER, VOL. VI, ed. by *Claude E. Forkner*, M.D. (New York City, Appleton-Century-Crofts, Inc., 1957. $6.75).

This book is a compilation of a series of clinical conferences.The sixth such volume, it covers 15 situations, and its index covers all six volumes.

The 15 topics discussed are timely. The discussions are built around actual clinical cases, and cover pathology, symptomatology, diagnosis and therapy very adequately. Each conference is well summarized by the editor.

This work can serve well as a reference for those who are interested in the diseases and conditions covered, and the topics cover a wide range, from "Should Patients Be Told the Truth About Serious Illness?" through cancer of the thyroid, prostate, esophagus, and lungs, to "Early Detection of Heart Diseases," "Parkinsonism," "Endometriosis" and "Gout." The subjects are well covered.—*William M. Sproul*, M.D.

OPHTHALMOLOGISTS' TRIP TO ASIA

The Asia-Pacific Academy of Ophthalmology is sponsoring a good will tour of the Orient following the International Congress of Ophthalmology in Brussels in September. The trip, which will last about one month, will comprise meetings in Pakistan, India, Thailand, the Philippines and Hong Kong. Physicians other than ophthalmologists, together with their families, will be welcome. For further information, write to Dr. William John Holmes, Suite 280, Alexander Young Building, Honolulu 13, and to the Compass Travel Bureau, 55 West 42nd Street, New York City 36.



Mr. Eldon Huston recently joined the ISMS headquarters staff. A native of Bagley, Iowa, he took his Bachelor of Science in Business Administration at Simpson College in 1954, served for two years thereafter in the United States Army, most of the time in France, and most recently has been assistant internal auditor for the Iowa Power and Light Company. His present ISMS title is "administrative assistant."

EAR BEETLES

Outdoor campers struck by sudden, agonizing pain in one ear may be the victims of *Serica sericea*, better known as the "June bug." Dr. Ralph A. Hall, of Westfield, New Jersey, has reported treating more than 200 cases at the Boy Scout Jamboree at Valley Forge, New Jersey, last summer.*

"The patient awakens from sleep with an agonizing pain in one ear. Usually he has been sleeping outside," Dr. Hall said.

"The 'June bug' is the size of a pea and fits snugly into the external auditory canal. . . . The signs include a blood-filled external auditory canal in a patient with no previous evidence of illness. No fever is noted until two or three days later in neglected cases," he continued.

For treatment, an oil anesthetic was used. "This promptly smothered the beetle and stopped the pain." The insect could then be removed by means of a spiral dental burr, such as is used to remove the root of a tooth.

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* Hall, R. A.: Beetles in the ear. J. M. SOC. NEW JERSEY, 55:64, (Feb.) 1958.

Iowa Academy of General Practice

THE AAGP SCIENTIFIC ASSEMBLY IN DALLAS

Sixty-two members of the Iowa Chapter were among the 3,634 doctors who descended in mass upon the city of Dallas, Texas, for the Tenth Annual AAGP Scientific Assembly, March 24-27. Besides enjoying Texas hospitality, the group had the honor of being the first of its size to utilize the facilities of the beautiful new Dallas Memorial Auditorium.

The Congress of Delegates met March 22-25 to conduct its business. The following officers were elected: Dr. Fount Richardson, Fayetteville, Arkansas, president-elect; Dr. Charles C. Cooper, St. Paul, vice-president; Dr. John P. Lindsay, Nashville, Dr. Paul S. Read, Omaha, and Dr. James M. Perkins, Denver, new members of the Board of Directors; Dr. James D. Murphy, Fort Worth, speaker; and Dr. Horace Eshbach, Drexel Hill, Pennsylvania, vice-speaker. Of interest to all members is the fact that the Congress opposed the change in the name of the American Academy of General Practice which had been recommended in the president's address.

On Wednesday evening, Dr. Holland T. Jackson, of Fort Worth, was installed as the eleventh president of the AAGP.

The Iowa Chapter membership should be proud that Iowa was awarded third place in membership records. This recognition is based on a combination of (1) number of new members, (2) percentage of increase and (3) percentage of potential members. Missouri took first place this year, and Michigan took second. Members of the Iowa chapter will remember that in 1954 their group ranked second, and they will accept the challenge and work with their membership committee to put Iowa on top in 1958.

As it always has been, the 1957 AAGP scientific program was a four-star performance. It covered the following subjects: The Problem of Aging; Emotional and Physical Problems of the Teen-Ager; Biliary Tract Surgery; Indefinite Pelvic Masses; Pediatric Medicine; New Developments in Medicine; Eye Problems Encountered by the Family Doctor; The Dizzy Patient; X-ray Interpretation; Limitations of the EKG; Manipulative and Operative Obstetrics; Urologic Problems in General Practice; Trauma, Fractures and Hand Injuries; and Medical Hypnosis. The enthusiasm manifested by the members in attendance at the sessions was proof of the quality of the presentations.

As chairman of the Mead Johnson Award Committee, Dr. Donald H. Kast, president of the Iowa Chapter, was privileged to present $1,000 to each of 10 interns, to help them during their general practice residencies.

The Iowa members, their wives and guests enjoyed a dinner and an informal evening together at the Baker Hotel. On that occasion, Dr. Jack McKenty, of Winnipeg, president of the College of General Practitioners of Canada, and Mrs. McKenty were the Chapter's honored guests.

At the close of the sessions on Thursday, all of the doctors were pleased that they had taken time to attend, and all are looking forward to the Eleventh Assembly, in 1959, which will take place in San Francisco.

POSTGRADUATE MEETING AT SPIRIT LAKE

The Iowa Chapter of IAGP is sponsoring a one-day postgraduate conference at Templar Park, Spirit Lake, on June 19. The program is to consist of papers on some of the problems that are encountered by all physicians who care for children. Registration will be at 8:00 a.m., and the scientific presentations will start at 9:00 a.m.

Dr. Harry A. Towsley, of Ann Arbor, professor of pediatrics at the University of Michigan, will discuss "Pediatric Office Procedures" and "Management of Infantile Eczema." Dr. Robert C. Fairchild, of Mission, Kansas, an instructor in pediatrics at the University of Kansas Medical Center, will talk on "Feeding Problems in Infancy" and "Hazards of the Newborn." Dr. Geno Kramar, of Omaha, a member of the faculty at the Creighton University school of medicine, will discuss "Recent Advances in Pediatrics" and a second topic which is yet to be announced.

Category I credit will be allowed for this conference.

Templar Park is located on State Highway No. 276, three miles from the city of Spirit Lake.

Perhaps some of the doctors who are to attend may wish to spend a few days vacationing with their families at this one of Iowa's Great Lakes. On request, Mr. Neal Cain, secretary of the Spirit Lake Chamber of Commerce, will be glad to supply full information. There are numerous beaches, golf courses and resorts in the vicinity. Templar Park itself has facilities for fishing, boating, swimming, golf, hiking and just loafing. Lodging will

be available at Templar Park itself, for those who desire it. Double rooms are centrally located, in each wing of the building, but they do not have individual bath and toilet facilities. The rate is $9 per day for two people, and that charge includes noon and evening meals. Data on nearby hotels and motels can be secured from Mr. Cain.

Plan to attend this conference, and to enjoy a few days of well-deserved relaxation.



PSYCHOSOMATIC ILLNESSES

Anna Jansons, M.D., Clarinda

The basic idea of psychosomatic illness is very ancient. Socrates, on his return from the Thracian Campaign more than 2,500 years ago, praised the wisdom of the physicians of Thrace in recognizing that the body cannot be healed unless the mind receives simultaneous treatment. He urged Athenian physicians to accept that principle and act upon it.

Several decades ago, psychiatrists began insisting upon the fundamental unity of man, and on the obvious relationship between body and mind. In health and disease, every somatic process has emotional reverberations, and conversely, each emotional reaction has immediate repercussions upon every tissue and cell of the body. A psychosomatic approach thus should not be confined to patients whose primary illness is physical; we should also use it in our attempts to help those who, though not "out of their minds," are ill without having any demonstrable physical pathology to account for their condition. These latter are the so-called "purely functional" problems.

A third psychosomatic group consists of patients who have symptoms that are chiefly dependent upon emotional factors, even though some organic findings are present. This group is especially important from the standpoint of diagnosis and treatment. The psychosomatic problems of such people are often very complicated, and because a serious organic disease may be present, the psychic factor is capable of doing much damage.

In everyday life, we see many psychosomatic relationships of a relatively temporary character. Shame or embarrassment makes one person blush. Another perspires excessively or experiences a rapid heart beat when frightened. A sensitive individual vomits after witnessing a horrible accident. If the state of emotional tension, anxiety or resentment becomes chronic, the psychologic reaction may persist until it results in a definite and irreversible structural change. A hysterical paralysis of long duration will result in the wasting of muscle tissue and the development of contractures, with consequent partial loss of function in one or more extremity. Similarly, the persistent elevation of blood pressure consequent to a chronic anxiety state may do as much damage to the blood vessels as would a true hypertension.

Therefore, besides acquainting ourselves with the manifestations of illness to be found in aberrations of blood chemistry, electrocardiograph tracings or other physical data, it is important for us to learn to know the patient as a human being, to find out his psychological background and to make an effort at discovering the specific mental factors which may have brought about or contributed to his illness.

Emotional difficulties may be found to have had any of a wide variety of causes. They may have arisen from the individual's long-standing dissatisfaction with his business, social or home life. Or the difficulty may have taken root during the patient's early childhood, through a deprivation of food, warmth or love, or through a parental misunderstanding of the physiologic rhythm essential to an infant's well being during the early weeks or months of life. Psychiatrists hear many complaints, also, about true or supposed physical illness from persons with involutional psychoses.

The emotions affect various bodily systems, and it seems probable that in a particular case, the organ or system that is involved depends upon the psychological causation. A failure in adjustment to environment can be manifested by symptoms mimicking almost any disease, or by affections of the spirit resulting in attacks of anxiety, obsessions, phobias, depressions or other disturbances of mood. In hysterics there may be deprivations of function such as blindness, deafness or paralysis. Backache, headache, nausea and vomiting, tachycardia and a great many other symptoms may have psychosomatic causes. The manifestations can occur not only in the genitourinary or respiratory system, the skin, the gastrointestinal tract, the heart or the blood vessels, but in the muscles, the bones and joints, the ductless glands or any other part of the body.

The emotional factor in disease is especially important in cases where the patient is apprehensive about his illness. An inadvertent remark made by the physician within the patient's hearing may lead to chronic invalidism or result in an exacerbation of symptoms.

A psychosomatic approach is particularly helpful in studying gastrointestinal disorders, disturbances in cardiovascular functioning, and respiratory difficulties such as bronchial asthma. Individual cases of peptic ulcer, mucous colitis, hypertension and bronchial asthma often have had unrelieved or suppressed emotional conflicts as their precipitating factors. Consequent eccentricities in function may even interfere with ordinarily effective medical therapy.



Blue Cross
Blue Shield



New Blue Shield Certificate Identification

Personnel in the physician's office need not worry too much about code numbers on Blue Shield contracts. The three basic codes, with many variations, will be used to indicate the deductibles and cooperative plans that give the patient a continuing interest in the cost of care.

Two things, however, are important to the physician as well as to Blue Shield:

1. The physician or his secretary must see the subscriber's latest Blue Shield identification card so as to report the up-to-date group and certificate numbers on the Blue Shield claim form. These code numbers change upon occasion, such as when the subscriber cancels and reenrolls, and also when the subscriber leaves a group.

2. The physician or his secretary must be sure to list the total charges to the patient for the services rendered. This information must appear on the claim form so that Blue Shield can determine its liability when individual consideration has been asked because of the complicated or unusual nature of the case. These total charges will also be a "must" for completing claims that are covered by the Blue Chip contract—where Blue Shield will pay the normal, reasonable and customary doctor's fee for services rendered.

The physician can rest assured that Blue Shield will pay the physician's charges or the maximum allowance under the type of contract for which the patient was paying when the professional services were rendered, whichever is the lesser.

THE DOCTOR'S BUSINESS



Incorporation for the Joint Ownership of a Medical Building

HOWARD D. BAKER

WATERLOO

Corporate ownership of a medical building has an advantage over partnership ownership in that it limits the owners' individual liability. This can be an important factor if several doctors with individual practices are involved, as opposed to a professional partnership or a clinic group. But it is a misconception that incorporation is in all instances preferable to a partnership for tax purposes.

The federal income tax on corporate earnings is 30 per cent of the first $25,000 of net profit, but a doctor whose income is taxed in excess of 30 per cent isn't necessarily correct in thinking that incorporation can save him some money. It could, if the earnings were *never* to be returned to him, but if they are paid to him periodically as dividends, he must pay tax on them along with his other earnings, and if he leaves them until after the dissolution of the corporation, he will still have to pay an individual tax on them, though it is true that they will then be regarded as a part of the increased value of his shares of stock and will be taxable as a long-term capital gain, the maximum rate for which is now 25 per cent. In any event, however, corporation earnings are taxed twice—once to the corporation and once to the stockholder—and there is only one way of getting around that double levy. After the stockholder has died and his heirs have inherited the property, the fair market price of the stock then becomes its value for income tax purposes. Subsequently, when the heirs sell the stock, they will not have to pay any tax on the increment that occurred during the original stockholder's lifetime.

EXAMPLE

As an example of the possible tax trap involved in the corporate form of ownership, let us assume that four doctors invest $10,000 each in the stock of a medical-building corporation, or a total of $40,000. The corporation then acquires a lot and building for $75,000, assuming a $35,000 mortgage.

If the net profit from the operation of the building is $5,000 per year, the corporation will pay 30 per cent of that sum each year in taxes ($1,500), and have $3,500 with which to reduce the mortgage. At the end of a 10-year period, the corporation will have paid $15,000 in taxes and will have liquidated the lien.

Now let us further assume that the building and lot are sold at the end of 10 years for $75,000, and the corporation is then dissolved. For his original $10,000 investment, each doctor then receives $18,750 and is required to pay a 25 per cent long-term capital-gains tax on the $8,750 increment.

The total tax that the corporation paid during its lifetime, $15,000, plus the total taxes that the participants paid following its dissolution, $8,750, makes a total of $23,700, which is 47.5 per cent of the doctors' $40,000 original investment. Thus it is obvious that physicians who are taxed in brackets below 47 per cent would lose money through such an arrangement.

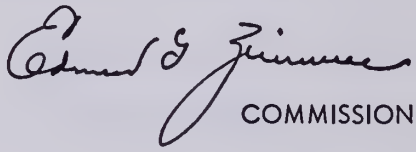
If, for other than tax reasons, doctors find it expedient to form a corporation to build or buy a building, they are well advised to establish rentals that will yield no profit to be taxed to the corporation.

Another popular misconception is that incorporation is an ideal means for transferring funds to children for the purpose of avoiding taxes. Since the income of the corporation is subject to tax at the rate of 30 per cent on earnings up to $25,000, there is much less advantage in giving children corporate income than in making outright gifts to them or setting up a short-term trust for their benefit.

On the other hand, corporate ownership has the advantage of simplifying some of the problems that arise where several partners own real estate. Title is held in the name of the corporation, and interests may be transferred through stock transfers rather than by deed. Transfers of individual interests in real property by partners are likely to involve more legal and accounting problems than would like transfers made by stockholders.

A decision on the form of ownership to adopt for a medical building is one that a doctor should not make without consulting his legal and financial advisors.

STATE DEPARTMENT OF HEALTH



COMMISSIONER

DENTAL HEALTH PROGRAM

SUMMARY OF REPORTS

	1941-42	1955-56	1956-57
Number of county nurses reporting[1] ..	33	55	58
Number of school nurses reporting ..	30	99	113
Number of town superintendents reporting (including parochials)		99	93
Number of county superintendents reporting		29	21[2]
Number of pupils represented in reports	68,858	240,666	256,714
Number of dental cards returned	22,920	140,404	148,633
Percentage returned	31.8%	58%	58%

EDUCATIONAL ACTIVITIES IN SCHOOLS PROMOTED BY NURSES

	Groups			Individuals		
	1941-1942	1955-1956	1956-1957	1941-1942	1955-1956	1956-1957
Conferences with superintendents .				160	716	621
Conferences with teachers				816	5,060	4,654
Conferences with dentists					750	882
Showing of slides	98	123	224	12,837	11,821	4,129
Showing of movie films	30	344	566	12,752	37,709	31,991
Dental health talks	112	1,514	1,462	2,557	55,682	37,070
Totals[3]	240	1,981	2,252	29,122	111,738	79,347

EDUCATIONAL ACTIVITIES WITH ADULTS

Showing of dental slides and films and dental health talks	109	442	307	2,701	16,380	7,733
Grand total of individuals reached				31,823	128,118	87,080

[1] County nurses reported for town and rural schools where there are no school nurses.

[2] County superintendents reported in areas where there are no county public health nursing services. For 1956-57, there were 1,915 schools covered by such reports.

[3] These reports covered 551 public and parochial schools located in towns.

DIPHTHERIA AND MALARIA SURVEILLANCE

The Communicable Disease Center of the U. S. Public Health Service has planned surveillance programs for both diphtheria and malaria, and has asked the states to participate by supplying certain information on every diagnosed case.

The diphtheria surveillance program will include a study of the present epidemiologic character of diphtheria, the clarification of the Schick immunity, variations in regional levels of immunity, and strain and virulence variations of C. diphtheriae. It has asked particularly that every laboratory making a positive cultural diagnosis of C. diphtheriae should send a culture of that organism to the State Department of Health laboratory. That laboratory will make sure that virulence tests and typing tests are done on all cultures submitted.

The accompanying tabulation shows Iowa's 1957 diphtheria case summary. For 1957, we have been able to gather all of the information that the U.S.P.H.S. wishes in its new surveillance program, except for virulence and typing of cultures. In 1958 and subsequently, we should like to make complete reports, including typing and virulence, on all of our diphtheria cases.

The surveillance plan for malaria is thought necessary because many persons returning to the United States or entering it for the first time constitute potential sources of infection. Returning servicemen, foreign travelers and migrant laborers are among that number. With a recurrence surveillance program, it should be possible to detect such sources and prevent a reestablishment of epidemic foci in the United States.

Each physician or laboratory making a positive slide examination for malaria is asked to submit that slide to the State Hygienic Laboratory, Medical Laboratories Building, Iowa City. That laboratory will, in turn, send it to the national repository for malaria at Chamblee, Georgia, for confirmation.

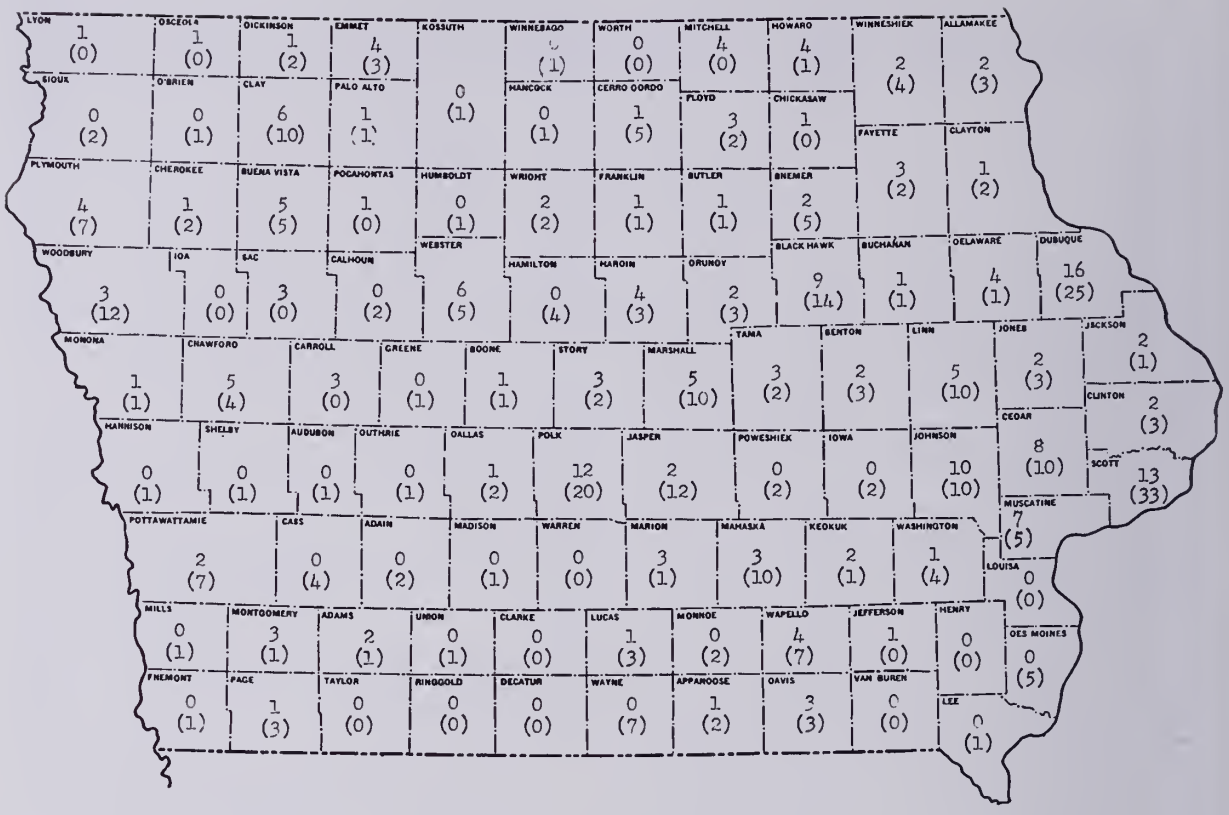
Attend the AMA Annual Meeting
San Francisco
June 23-27

DIPHTHERIA CASES IN IOWA—1957

No.	Initial	City and County	Report Date	Race	Sex	Age	Vaccination Status	Status	Positive Culture		Severity and Complications
									Type	Virulence	
1	B. P.	Council Bluffs Pottawattamie	1-19-57		M	4	None	Confirmed	None	None	No complications. Severe; tracheotomy
2	Mrs. H. T.	Humboldt Humboldt	3-16-57	W	F	31		Confirmed			
3	M. L.	Keokuk Lee	4- 6-57	W	F	29	Lapsed	Confirmed	Culture—C. diphtheriae found		Moderate—no complications
4	F. L.	Keokuk Lee	4- 6-57	W	F	16	None	Confirmed	Smear—a few granulated bacilli resembling either diphtheroid or C. diphtheriae		Quite severe but responded well to diphtheria antitoxin. No complications
5	C. B.	Sioux City Woodbury	7-20-57	W	F	5	None	Confirmed		None	No severe complications
6	Mrs. E. N.	Clarinda Page	7-20-57	W	F	42					Deceased 7-11-57
7	D. E.	Des Moines Polk	8-17-57	W	F	7	None prior to onset; given 9-21, 11-2, 11-30		Dr. diagnosed on basis of patches on mucous membrane 8-13-57; no culture obtained then; N & T cultures taken 8-16 were negative. No complications		
8	M. G.	Council Bluffs Pottawattamie	11-30-57	W	F	10	None	Confirmed	Not done	Not done	Moderate severity. No complications
9	F. P.	Council Bluffs Pottawattamie	11-30-57	W	M	4	None	Confirmed	Not done	Not done	Mild to moderate severity. No complications
10	P. J.	Council Bluffs Pottawattamie	11-30-57	W	F	5	None	Confirmed	Not done	Not done	Mild to moderate severity. No complications
11	P. J.	Council Bluffs Pottawattamie	12- 7-57	W	F	2½	None	Confirmed	Not done	Not done	Mild to moderate severity. No complications
12	T. McF.	Davenport Scott	12- 7-57	W	M	3	None	Confirmed	Not done	Positive for C. diphtheriae	Severe; tracheotomy
13	J. McF.	Davenport Scott	12-26-57	W	M	9	None	Confirmed		Positive for C. diphtheriae	Moderate

The accompanying tabulation shows Iowa's 1957 diphtheria case summary. For 1957, we have been able to gather all of the information that the U.S.P.H.S. wishes in its new surveillance program, except for virulence and typing of cultures. In 1958 and subsequently, we should like to make complete reports, including typing and virulence, on all of our diphtheria cases.

HUMAN BRUCELLOSIS IN IOWA IN 1957



In each county, the first number is the incidence for 1957, and the second number (in parentheses) is the incidence for 1956.

Physicians in Iowa reported 214 human cases of brucellosis in 1957. Although this is a decrease from the 360 cases reported in 1956, it represents a comparatively high incidence. Almost one-fourth of all cases reported in the United States last year were in Iowa.

Most of the Iowa cases resulted from direct contact with infected animals—cattle or hogs. In some instances the contact was rather unusual. For example, a rural housewife developed the swine type of brucellosis after bottle-feeding an orphan baby pig for a few days.

Since cattle and hogs are the sources of human cases, the animal reservoir of the disease must be eradicated if human brucellosis is to be prevented.

MORBIDITY REPORT FOR MONTH OF MARCH

	1958 Mar.	*1958 Feb.*	*1957 Mar.*	*Most Cases Reported From These Counties*
Diphtheria	0	0	1	
Scarlet fever	376	186	239	Boone, Jefferson, Johnson, Polk
Typhoid fever	0	0	0	
Smallpox	0	0	0	
Measles	671	408	1,215	Buena Vista, Des Moines, Dubuque, Linn, Polk,
Whooping cough	8	3	10	Sac, Scott
Brucellosis	9	10	18	One from a county
Chickenpox	1,197	748	1,105	Clay, Des Moines, Dubuque, Polk, Scott
Meningococcus meningitis	1	2	0	Scott
Mumps	1,146	983	752	Clay, Dubuque, Polk, Pottawattamie
Poliomyelitis	0	1	0	
Infectious hepatitis	24	18	31	Jackson, Polk
Rabies in animals	32	15	46	Chickasaw, Linn, Lyon, Story
Malaria	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Tuberculosis	52	38	44	For the state
Syphilis	129	103	79	For the state
Gonorrhea	74	83	66	For the state
Histoplasmosis	0	0	1	
Food intoxication	0	0	0	
Meningitis (type unspec.)	0	2	1	
Diphtheria carrier	0	0	0	
Aseptic meningitis	0	0	0	
Salmonellosis	9	4	3	Black Hawk, Polk
Tetanus	0	1	0	
Chancroid	0	1	0	
Encephalitis (type unspec.)	1	0	0	Polk
H. influenzal meningitis	3	0	1	Story, Greene, Adair
Amebiasis	1	6	3	Pottawattamie
Shigellosis	1	2	0	Dubuque
Influenza	107	1,250	33	Buchanan

Woman's Auxiliary News

OUR PRESIDENT SAYS—

My year as your president is over. It would be foolish for me to attempt to express my feelings at this time, but I want to assure you that I have thought it a great privilege to serve you. Going from one meeting to another, getting acquainted with you as I could not have done otherwise, and enjoying your hospitality and enthusiasm have made the past year a series of memories which I shall always cherish.

Whatever has been accomplished, I could not have done alone. My final message to you, then, can only be one of deepest gratitude.

May I express a personal thanks to each and every one who has contributed in any way to the over-all program and activities of the Auxiliary. Even though some of our goals haven't been reached, there is satisfaction for us in knowing that we tried.

I am particularly grateful to all the officers, chairmen and co-chairmen who have given so much of their time to keep the mechanics of our Auxiliary going, to everyone in the State Office who so willingly helped me, to the State Medical Society for its guidance, and especially to Hazel Lammey for her untiring patience with me.

As I review the year, I do find disappointments, but there have been so many fine accomplishments, new friendships and other satisfactions that they are far outweighed.

Now once again I join you as a member of the Auxiliary to work for an even more successful year in 1958-1959.

SUE GERKEN

AMA AUXILIARY MEETING IN SAN FRANCISCO

The call of the West will be heeded by physicians' wives in June, and they will travel to San Francisco for the thirty-fifth annual convention of the Woman's Auxiliary to the American Medical Association.

At the Fairmount Hotel, national committee meetings and roundtable discussions will be held June 21-23, and the formal opening of the convention will take place on June 24 (Tuesday).

Business sessions on the mornings of June 24 and 25 will be devoted to state and national committee reports and discussions of current projects. Tuesday's luncheon will honor past presidents of the National Auxiliary and the featured guest speaker will be Mr. Richard H. McFeeley, principal of George School, Bucks County, Pennsylvania. The speaker at Wednesday's luncheon, in honor of Mrs. Paul C. Craig, of Pennsylvania, the current president, and Mrs. E. Arthur Underwood, of Washington, the president-elect, will be Dr. David B. Allman, of Atlantic City, the immediate past-president of the AMA. At that session, Mrs. Craig will present the Woman's Auxiliary's contribution to the American Medical Education Foundation, and Dr. George F. Lull, AMEF president, will present AMEF awards to the component Auxiliaries.

Election and installation of national officers will take place on Thursday morning, and adjournment is scheduled for Thursday noon.

One of the high lights of the convention will be the premiere showing of the medical-careers recruitment film "Helping Hands for Julie," at 3:00 p.m. on Wednesday. All Auxiliary members, their husbands and friends, are invited to attend this showing.

COUNTY AUXILIARIES

COUNTY AUXILIARIES

Dallas-Guthrie

The regular meeting of the Dallas-Guthrie Medical Auxiliary was held on March 20 at the home of Mrs. Wm. V. Thornburg, in Guthrie Center, following a luncheon at the Midway Cafe there. After the regular business had been transacted, the group enjoyed the very beautiful as well as educational colored pictures that Dr. and Mrs. Herbert Neff took while they were stationed at a mission hospital in Puerto Rico.

Delaware

Junior and senior students from the high schools of Delaware County were guests, on March 29, of the Delaware County Medical Auxiliary, and those interested in hospital professions were given a great deal of information. The young people heard talks by Miss Turner, educational director of Allen

Memorial Hospital, Waterloo, and by Mrs. Loes, director of nursing service at that institution. Mrs. Margaret Coles, a laboratory technician at the Memorial Hospital in Manchester, described medical technology and allied services.

Dubuque

Due to the success of its annual Mardi Gras ball, two scholarships rather than one are to be awarded to nursing students this year by the Dubuque Medical Society Auxiliary. The announcement was made by Mrs. William Province, president of the organization.

In the past, a new student has been started at each of the two local schools of nursing in alternate years. This fall, however, a new girl will be started at each school. Two recipients of scholarships are currently in training.

Mrs. R. P. Rusk is the sponsor of the student at Finley, and Mrs. Richard McKay is the sponsor of the Mercy Hospital School student. Members of the Scholarship Committee are Mrs. Donovan Ward, Mrs. Mansfield Lagen and Mrs. John Thorsen.

Mahaska

Doctors of Mahaska County were honored at a steak dinner on March 29 at the Elmhurst Country Club, in Oskaloosa, by the Mahaska County Auxiliary. Small black medical bags, with name and "a treasured token" for each doctor's desk were used as place cards. Following the dinner, members of the Auxiliary put on a style show, modeling chemise and sack dresses through the courtesy of local stores. They also modeled some amusing creations of their own. Dr. F. O. W. Voigt, president of the County Medical Society, delighted the group with several piano selections.

Monona

The Monona County Medical Auxiliary met at the home of Mrs. Leo Gaukel, in Onawa on March 18, for a one o'clock luncheon. Mrs. Paul Wolpert was co-hostess. The new officers who were elected during the following business meeting are: Mrs. John McClellan, of Onawa, president; Mrs. Wolpert, vice-president; and Mrs. Harold Ganzhorn, of Mapleton, secretary-treasurer.

Page

The Page County Medical Auxiliary sponsors the Future Nurses Club of Shenandoah and gave a tea for the girls on March 24. Thirty-six active members of the group and several Clarinda high school students who are interested in forming a club attended.

The Shenandoah FNC programs for the year have included films on nursing as a career, talks by two student nurses from the local hospital, and a program on Florence Nightingale put on by one of the girls. The Club takes two field trips each year. The first, at Christmas time, is to the Clarinda Mental Health Institute, where the girls sing carols. For the second one, which was held on April 11 this year, the group is divided, and half go to visit the State School at Glenwood and the other half go to see the State School for the Deaf at Council Bluffs. The girls must maintain an average of 80 and attend FNC meetings regularly to be eligible for these outings.

Other activities during the year include making tray favors for holiday meals at nursing homes and, helping at the blood bank. In addition, two girls regularly carry trays each evening at the local hospital.

The FNC year will conclude with a tea for sophomore girls interested in nursing, at which the juniors are presented with FNC pins.

Polk

At the March meeting of the Woman's Auxiliary to the Polk County Medical Society, which was held in the home of Mr. Robert Updegraff, the honored guests were Mrs. Florence Myers and Mrs. M. L. Northup, the 1957 and 1958 winners, respectively, of the Des Moines annual community health service award. This recognition is given each year by the Auxiliary to a Des Moines woman not of the medical profession who has contributed most to the health and health education of the city.

Webster

The April 8 meeting of the Webster County Auxiliary followed a coffee at the home of Mrs. Arthur Echternacht, in Fort Dodge. Mrs. D. C. Cooper, president of the organization, conducted the meeting.

The program high lights were talks by three representative members of the Future Nurses Club, Sondra Anderson, Joyce King and Doris Benson. They told what their Club has been doing, and a little of what it hopes to do in the future.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. J. F. Gerken, Waterloo
President-Elect—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Reducing Overhead in the Practice Of Medicine

R. J. PRITCHARD

COUNCIL BLUFFS

When a physician appreciates that he can use no more than between eight and ten per cent of his cash income for accumulating an estate, he is sure to realize that he can ill afford any increases in his overhead. Indeed, it is important for him to review the business aspects of his practice periodically, and make changes designed to keep his expenses as low as possible.

The procedures and data to be presented here have been evaluated and are based on practices now in use in our organization. All comparisons and results are on a per-doctor basis.

Areas in which the physician should consider changing his methods include: (1) buying supplies; (2) arranging storage space; (3) supervising accounts receivable; (4) introducing labor-saving devices; (5) tax planning; and (6) constructing or acquiring ownership of his own building. This paper, however, will be concerned only with the first three of them: buying supplies, arranging storage space and supervising accounts receivable.

Records show that doctors with practices of comparable size vary considerably in their expenditures for drugs and supplies. For those in the usual sort of general practice, costs run up to eight cents of each dollar of income, and a general practitioner with a dispensing practice spends up to 15 cents. Specialists spend from 4 to 15 cents of each dollar for such items. In our organization, expenditures for that purpose are approximately three cents for each dollar of income, and included in those three cents are the costs of x-ray and laboratory supplies.

Three, four, eight and 12 cents aren't particularly impressive amounts, even when one reminds himself that in this context they represent percentages. So let us consider the dollars that they represent in an actual practice. A physician with a cash income of $30,000 per year who spends eight cents of each dollar for drugs and supplies is devoting $2,400 to that purpose. For him, the difference between spending four cents and eight cents per dollar would be more than $1,000 per year!

Such savings can be realized, with a minimum of effort, when one knows what he needs, where to buy it and what to pay for it.

The sources of supply that should be investigated for prices are drug stores, medical supply firms, mail-order houses and direct buying opportunities. All of our injectibles are bought through local drug stores, but some doctors would be unwise in following our example without doing some preliminary checking. Throughout the state, some drug stores wholesale injectibles to physicians at actual cost, but others charge them a mark-up of 20 to 30 per cent. I am told that the suggested margin on most injectibles is 16⅔ per cent. The two important factors that determine the prices that druggists charge doctors are the volume of business they do with them and the degree of cooperation which exists between the druggists and the representatives of the manufacturers. Most detail men will arrange for a shipment from a store elsewhere in their territory, if the local drug stores are out of line on their pricing policies. Wholesale prices are based on small-unit buying, and if the druggist can buy in sufficient quantities to avail himself of quantity discounts, he can sell to doctors at wholesale and still make a good profit. Drug stores can provide many medical supplies at prices lower than those of medical supply houses.

When polio serum first became available, it wholesaled to doctors at prices as high as $14 for a 9 cc. vial. In our area, doctors got it for as little as $9, or about 35 per cent less. Penicillin, in 600,000-unit multiple-purpose vials, is sold in some areas at $1 a vial. In our area, it is available for $.80, or about 20 per cent less. The price differences on other injectibles follow right down the line.

As competition increases in the field of ethical pharmaceuticals, free merchandise and special deals are being offered. Most of these promotions are set up on a small-quantity basis so that anyone can take advantage of them. These few illustrations should point up the fact that it can be worthwhile to check prices on injectibles, regardless of one's accustomed source of supply.

Medical supply houses have one set of prices for hospitals and another for physicians. Because hospitals will buy in larger quantities, they are granted an extra 20 per cent off list prices. But the term *quantity purchase* can be interpreted rather loosely, and the 20 per cent differential tends to disappear when competition becomes keen. Discounts of 30 per cent are not uncommon on purchases of equipment and instruments. Cash discounts are generally allowed if bills are paid within 30 days, but to get such discounts one must ask for them, since no mention is made of them on the vendors' statements. Comparing invoices on repeat orders is another means of saving money. Competition will bring prices into line in any

Mr. Pritchard is administrator of the Cogley Clinic.

area as soon as doctors start to *buy* their supplies, instead of merely *ordering* them.

SAVINGS ON TYPICAL ITEMS

Item	*Former Price*	*New Price*	*% Saved*
Gauze Sponges	$9.50 per 1,000	$7.25 per 1,000	24
Sutures	$7.00-$9.00 per. doz.	$4.00-$5.00 per doz.	40
Germicidal	$4.75 per gal.	$.50 per gal.*	90
Table paper	$1.25 per roll	$.90 per roll	30
Gauze pads	$1.95 per 100	$1.60 per 100	18
History Envelopes	$30.00 per 1,000	$10.00 per 1,000	66

* We now make it ourselves.

Our records show that we have been able to reduce costs on 70 per cent of the 500 diffierent items we purchase. But in doing so, we haven't sacrificed quality. When we change an item, the replacement has to meet or surpass the specifications of the article that we have been using. We also have discovered that one doesn't have to do volume buying in order to get volume prices. The most important factor in buying medical supplies is to know your needs and then get the best price on that volume, whether it be a dozen, a box or a case.

A detailed survey of our office needs showed that 10 per cent of our items could be eliminated. This area alone is worth looking into, for I am sure that many offices can dispense with an even larger share.

ADEQUATE STORAGE SPACE IS ESSENTIAL

Adequate storage space returns more per invested dollar than any other type of investment one can make. If there are shelves on which to keep materials, one can buy to cover needs for a period of six months or a year. Furthermore, through an efficient arrangement of stored supplies, duplication and superfluity can be avoided. Office supplies, forms and stationery can all be bought at better prices if they are ordered to cover needs of at least a 12-month period. We have reduced our printing costs about 25 per cent through eliminations, competitive bidding and buying to cover our needs a year in advance. When there are two, three, four or five doctors, rather than just one, the opportunities for reducing overhead are tremendous.

So as to save time and to have all of the information we need when we buy our supplies, we keep a card index on all of the items that we stock. From our invoices, we record the date of purchase, the quantity, the specifications and the cost of each shipment of each article. On the back of the card, we record the prices that the various suppliers have quoted us on various quantities of the item. Maintaining this index requires about two hours of work once a month, but the time is well spent, for as a result we know how much we use of each article, where to buy it and how much to pay for it.

To keep your office well supplied at the lowest possible cost, I suggest that you consider these procedures: (1) provide suitable storage space, (2) arrange supplies for better accountability, (3) study your usage for possible changes and eliminations, (4) keep some type of record to measure your needs, (5) ask for quotations on the items you propose to buy, and (6) start to *buy* supplies instead of merely *ordering* them.

ACCOUNTS RECEIVABLE

An item of overhead which isn't generally considered a part of expenses is bad debts. Even though they don't appear on your financial statement, they are important and deserve your attention. In the Middle West, collections average about 90 per cent. With 10 per cent of patients' accounts uncollected, the average physician takes a loss of about $3,000 per year. Extend this over a lifetime of practice, and one finds that such a man loses an aggregate of $90,000 to $100,000. When that kind of money is involved, certainly a little time and the proper kind of effort should be expended. With proper controls, the total of accounts receivable should be kept from exceeding the volume of three months of services rendered.

No single asset that a doctor can accumulate will deteriorate so fast as open accounts. For this reason, a doctor should know his total accounts receivable at all times. Yet less than 30 per cent of physicians in the Middle West have this information. The U. S. Department of Commerce reports that your account dollar is worth $.67 after six months, $.45 after one year, $.23 after two years, and $.15 after three years. After five years it is worth only one cent. With that kind of shrinkage taking place, the need for close supervision is apparent.

If your collection percentage is 95, you should determine the share that is realized from your efforts and the share that is contributed by collection agencies. If agencies are collecting five per cent for you, your efforts are realizing 90 per cent and not 95 per cent. Some 18 months ago, we revised our entire collection and credit-control procedures. An analysis of our accounts since that time shows that 75 per cent of our accounts are collected in 90 days. Ten per cent are collected in 120 days, and the remaining 15 per cent are transferred for special attention. We make approximately 30 per cent of our collections from insurance carriers.

Any account which is not on a paying basis after four or five months is transferred to a second file for special care. We have found that 15 per cent of accounts in this file can be collected with proper follow-through. During this period our efforts resulted in the collection of 10 per cent, our attorney collected one per cent, collection agencies collected three per cent and one per cent has remained uncollectable. With these procedures, we were able to reduce the amount turned over for collection by 50 per cent, and have increased our cash income more than $1,500 per

doctor. The next 18 months should see our collection accounts reduced still further.

We use cycle billing, sending statements to a designated part of the alphabet each week. All statements are itemized, and a postage-paid reply envelope is enclosed for the convenience of the patient. If no response has been received from two statements, a reminder is sent with the third statement. The fourth statement includes a reminder asking the patient to get in touch with us for such special arrangements as he may need. Along with the fifth statement, the patient is sent a note saying that any action necessary to collect the account will be taken unless he communicates with us.

After four or five statements, the account is transferred to our special file. Should the patient return for more service, we arrange to interview him before he sees the doctor. Our accounts are marked to show what notices the patients have been sent and what agreements or plans they have made with us for paying what they owe. Separating our accounts gives us an opportunity to supervise efficiently, spending our time where it is needed most. As soon as we have put an account on a proper paying basis, we move it back into our regular file. Over a period of six months, we give the patient every opportunity to make arrangements before we turn his account over to an outside agency for collection. The success of any collection program has to be based on fairness, firmness, and a sincere desire to help rather than to force.

There are many types of collection aids that can be used to stimulate slow-paying patients. One can use personally typed letters, printed reminders, phone calls and personal interviews. We have been using the collection aids advocated by the Associated Credit Bureaus of America and the National Retail Credit Association. The Credit Association aids are inexpensive, and the time-saving factor is so great that complete coverage is assured. Most office assistants are reluctant to use any program that takes time and effort. Circumstances often dictate that an account be followed up weekly or twice a month. These collection aids make it easy to get this kind of follow-up. A good credit-control program has to be flexible, easy to handle, time-saving and effective in bringing the patient into contact with the doctor's office.

For each dollar of cash that is spent today, there are $138 spent through the use of credit. Since credit is becoming the most important asset that people have, it is not hard to visualize what happens when an unpaid medical bill starts affecting an individual's credit rating. Incidentally, we make a point of notifying our prompt-paying and re-educated patients that they may use our organization as a credit reference.

Interviewing patients is probably one of the better methods that can be used in collections, but if results are to be achieved by that means, one must know something about the people with whom he is to talk. If we do not have the requisite information, we order credit reports on all surgical, large-medical and suspected hardship cases. These reports give us information on annual income, net worth and related matters. In elective surgery and obstetrical cases, we interview patients in advance and ask them to make arrangements for payment. If there is a question of ability to pay, we adjust our fees downward—on the basis of facts, not hard-luck stories. True hardship or charity cases are transferred out of our files, and no collection action is taken on them.

Discussing accounts with patients gives us an opportunity to educate slow-paying patients as regards making regular payments. The patient is allowed to set up his own payment plan, but an understanding is reached so as to insure regular payments or a revision of the arrangements. All promises are followed very closely, and as patients realize the attention that is being given them, they are careful to make regular payments.

Proper interviewing of patients can be used to build good will. If the interviewer approaches the patient with a sincere desire to help him solve a financial problem, or avert one, the end result will be a satisfied paying patient. Our experience with slow-paying people shows that two out of three are sincere in their desire to pay what they owe, but are having financial difficulties. The third one offers excuses and hard-luck stories. If a solution cannot be worked out with this last type, we inform him that any future services will be rendered on a cash basis.

One of the most costly items of overhead is collection. Good agencies charge 50 per cent of the amount collected. By cutting our collection accounts in half, we have also cut our collection costs in half. Mention was made of accounts turned over to our attorney for further action. Our records show that a sizable percentage of accounts turned over to an agency for collection were paid in full on the first contact by that organization. By sending these accounts to our attorney, we could have collected them at a much lower cost to us. In the final analysis, the type of collection aids that a clinic manager or a doctor's assistant uses are not nearly so important as is that person's doing *something*, doing it *often* and *repeating* it until the account has been collected!

I suggest that you check these procedures which have helped us and might be of value in your office: (1) send statements regularly, (2) follow statements with some form of collection aid until you get a response, (3) interview patients, (4) encourage the formation of payment plans, (5) insist upon regular payments or the making of new arrangements, (6) be sure you have the facts and make use of credit reports, and (7) separate accounts that need supervision, so that they can be given special attention.

Uncollectable income need not be a problem if you will set up a collection program that your assistants can handle and that they can pursue consistently.

Coming Meetings

In State

June 2-6 **Internal Medicine (American College of Physicians). SUI College of Medicine, Iowa City**

Out of State

June 2-4 **Practical Pediatric Hematology.** U. of Pennsylvania Graduate School of Medicine, Philadelphia

June 2-6 **Advances in Medical Library Practice (Medical Library Association, 57th Annual Meeting).** Hotel Kahler, Rochester, Minnesota

June 2-6 **Physiological Basis of Clinical Electrocardiography.** Alumni Hall, N.Y.U., N.Y.C.

June 2-7 **Neurological Medicine (Harvard Medical School).** Boston City Hospital, Boston

June 2-13 **Cystoscopy.** Cook County Graduate School of Medicine, Chicago

June 2-13 **Pediatrics, III (Harvard Medical School).** Massachusetts General Hospital, Boston

June 2-14 **Course I in Surgical Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago

June 2-20 **Trudeau School of Tuberculosis and Other Pulmonary Diseases, Forty-second Session (Trudeau Foundation and the Hyde Foundation).** Saranac Lake, New York

June 2-27 **Clinical Use of Radioactive Isotopes (Columbia University College of Physicians and Surgeons).** Mt. Sinai Hospital, New York

June 3-15 **Bronchology, Esophagology and Laryngeal Surgery.** U. of Pennsylvania Graduate School of Medicine, Philadelphia

June 4-8 **American Dermatological Association.** Challenger Inn, Sun Valley, Idaho

June 5-6 **Blood Group Incompatibilities and Erythroblastosis Fetalis.** U. of Pennsylvania Graduate School of Medicine, Philadelphia

June 5-7 **Ear-Nose-Throat.** U. of California, San Francisco

June 5-7 **Emotional Problems in Office Practice (U. of California Residential Conference Center).** Lake Arrowhead, California

June 6 **Annual General Practice Symposium (Wisconsin Academy of General Practice).** Hotel Schroeder, Milwaukee

June 6-7 **Collagen Diseases.** U. of California, Los Angeles

June 9-10 **Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago

June 9-12 **Annual Meeting, Wyoming State Medical Society.** Jackson Lake Lodge, Moran, Wyoming

June 12-14 **American Electroencephalographic Society.** Hotel Traymore, Atlantic City

June 9-13 **Hematology for Internists.** U. of Rochester Medical Center, Rochester, New York

June 9-13 **Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago

June 9-13 **Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago

June 9-14 **Thoracic Surgery.** Cook County Graduate School of Medicine, Chicago

June 9-20 **Symposium on Modern Therapeutics in Internal Medicine.** N.Y.U., N.Y.C.

June 10-13 **Pediatric Metabolism and Endocrinology (Harvard Medical School).** Massachusetts General Hospital, Boston

June 10-14 **Anesthesiology.** U. of Pittsburgh School of Medicine, Pittsburgh

June 15-18 **American Association of Neuropathologists.** Claridge Hotel, Atlantic City

June 15-19 **Canadian Medical Association Annual Meeting.** Halifax, N. S., Canada

June 15-20 **International Association for Child Psychiatry.** Lisbon, Portugal

June 16-18 **Eighty-third Annual Meeting of the American Neurological Association.** Atlantic City

June 16-18 **Clinical Pathology for General Physicians.** U. of Minnesota, Minneapolis

June 16-18 **Techniques of Hypnosis.** U. of California, Los Angeles

June 16-19 **Duke Medical Postgraduate Course.** Duke University School of Medicine, Durham, North Carolina

June 16-20 **Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago

June 16-20 **Internal Medicine (American College of Physicians).** U. of California School of Medicine, San Francisco

June 16-21 **Clinical Hematology for Internists and Pathologists.** U. of Colorado Medical Center, Denver

June 16-21 **Breast and Thyroid Surgery.** Cook County Graduate School of Medicine, Chicago

June 16-22 **Internal Medicine (American College of Physicians).** U. of Calif. Med. Center, San Francisco

June 16-27 **Cystoscopy.** Cook County Graduate School of Medicine, Chicago

June 16-July 26 **Internal Medicine III (Harvard Medical School).** Massachusetts General Hospital, Boston

June 17-19 **Annual Meeting, American Goiter Association.** St. Francis Hotel, San Francisco

June 18-20 **Advanced Techniques and Application of Hypnosis,** U. of California, Los Angeles

June 18-22 **Twenty-fourth Annual Meeting, American College of Chest Physicians.** San Francisco

June 19-20 **American Geriatrics Society.** Mark Hopkins Hotel, San Francisco

June 19-21 **Society of Nuclear Medicine.** Beverly Hilton Hotel, Los Angeles

June 19-21 **The Endocrine Society.** St. Francis Hotel, San Francisco

June 19-21 **American Rheumatism Association.** San Francisco

June 19-22 **American Medical Women's Association.** San Francisco

June 19-22 **American Therapeutic Society.** Mark Hopkins Hotel, San Francisco

June 20-22 **International Fertility Association.** Windsor Hotel, Montreal

June 21 **American Academy of Tuberculosis Physicians.** San Francisco

June 21 **North American Chapter of the International Cardiovascular Society.** Sir Francis Drake Hotel, San Francisco

June 21-22 **American College of Angiology.** Fairmont Hotel, San Francisco

June 21-22 **American Diabetes Association.** Mark Hopkins Hotel, San Francisco

June 21-22 **National Medical Veterans Society.** San Francisco

June 21-22 **Annual Meeting, Society for Investigative Dermatology.** Clift Hotel, San Francisco

June 22-24 **Annual Meeting, Maine Medical Association.** Rockland, Maine

June 22-28 **Second World Congress of the International Federation of Gynaecology and Obstetrics.** Queen-Elizabeth Hotel, Montreal

June 23-24 **Management of Chronic Kidney Disease.** N.Y.U., N.Y.C.

June 23-25 **Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago

June 23-25 **Recognition and Treatment of Heart Disease.** N.Y.U., N.Y.C.

June 23-27 **Acute Neurological Problems of General Practice.** N.Y.U., N.Y.C.

June 23-27 **Annual Meeting, American Medical Association.** San Francisco

June 23-27 **Advanced Course in Electrocardiography.** Cook County Graduate School of Medicine, Chicago

June 23-27 **Radium Therapy.** Cook County Graduate School of Medicine, Chicago

June 23-27 **Association for Research in Ophthalmology.** Fairmont Hotel, San Francisco

June 24-27 **American Orthopedic Association.** Hot Springs, Virginia

June 24-29 **Roentgen Diagnosis (U. of Cincinnati College of Medicine).** Cincinnati General Hospital, Cincinnati

June 25-26 **Management of Hypertension.** N.Y.U., N.Y.C.

June 25-July 1 **International Congress of Urology.** Stockholm, Sweden

(Continued on page 316)

Scientific Articles

Carcinoma in Situ of the Uterine Cervix

With Special Reference to the Pregnant Patient

LORNA D. JOHNSON, M.D., AND ARTHUR T. HERTIG, M.D.

BOSTON, MASSACHUSETTS

CARCINOMA *in situ*, first described by Sir John Williams in the Harvey Lecture of 1874, has been of particular interest during the past decade to pathologists, gynecologists and obstetricians in medical centers throughout the world. This interest is stimulated by the belief that carcinoma *in situ* (a curable disease) is the precursor of invasive cancer. In other words, if carcinoma *in situ* can be recognized clinically and pathologically, then invasive cancer is a preventable disease.[1]

DEFINITION

Carcinoma *in situ* may be defined as the presence of morphologically malignant but noninvasive squamous epithelium on the surface and/or in the glands of the cervix.

It is most important to emphasize that no matter how malignant the precursor or *in situ* stage of a cancer looks, it is usually not identical with its invasive derivative. That this is probably a general phenomenon is shown by observation of trophoblast, endometrium and cervix. Thus, no matter how undifferentiated the trophoblast of a hydatidiform mole may appear, in our experience it is never identical with a choriocarcinoma (Hertig and Mansell,[2] Figs. 39 and 40). Moreover, the immediate precursor of endometrial carcinoma is never identical with its invasive counterpart (Sommers, Hertig and Bengloff,[3] Case 10, Figs. 1, 2, 3 and 4). It is our impression that cervical carcinoma *in situ*, although malignant in appearance, is not morphologically identical with the invasive carcinoma of that organ (Younge, Hertig and Armstrong,[4] Figs. 2, 3, 6a and 6b).

Dr. Johnson is a research associate in the Department of Pathology at Harvard and at the Boston Lying-in Hospital, and Dr. Hertig is Shattuck Professor of Pathological Anatomy and head of the Department of Pathology at Harvard, and a consultant in pathology at the Boston Lying-in Hospital.

This paper, reporting research done under the auspices and with the cooperation of the Departments of Obstetrics at the above-named institutions, was read by Dr. Hertig as the Erskine Memorial Lecture at the 1957 Annual Meeting of the Iowa State Medical Society. The work that it summarizes has been supported by Grant No. C-2034 from the National Institutes of Health of the United States Public Health Service.

CIRCUMSTANTIAL EVIDENCE THAT CARCINOMA IN SITU IS THE PRECURSOR OF INVASIVE CANCER

The data which constitute circumstantial evidence that carcinoma *in situ* is the precursor of invasive cancer have been summarized previously by one of us (A.T.H.).[5,6] References to original data are in these previous papers, with the exception of those given below.

1. The incidences of the two conditions, although not equal, are comparable: 0.0524 and 0.0340 per cent, respectively.

2. The average age at which it appears is about 10 years earlier than that of invasive carcinoma.

3. Its occurrence in Jewish and Negro[7] patients is comparable to that of invasive cancer in those two groups.

4. The *in situ* stage of the disease has been observed to progress to the invasive form in from 11 months to 12 years.

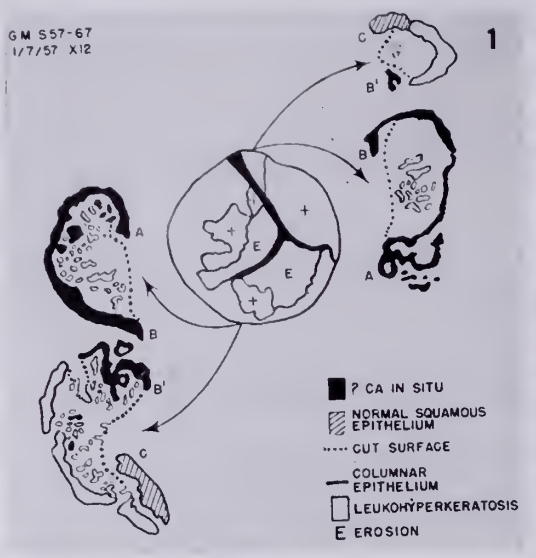
5. In patients with invasive carcinoma, biopsies taken from one to 17 years earlier usually show the *in situ* stage of the disease.

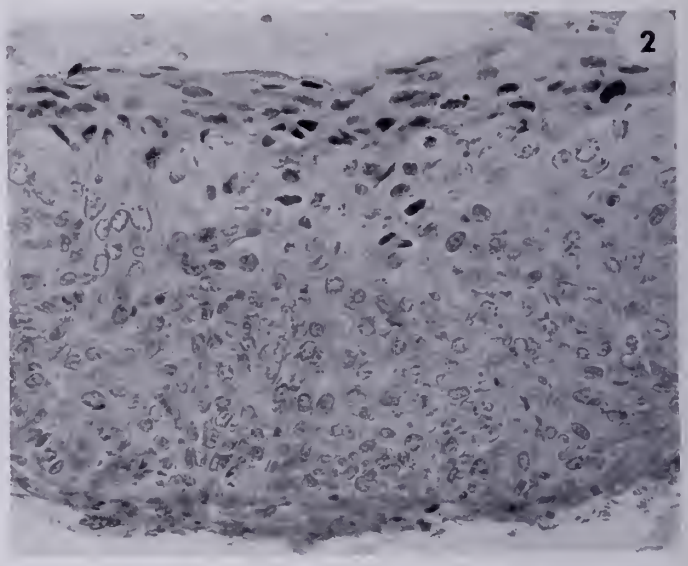
6. Semi-serial sections of cervices harboring carcinoma *in situ* reveal the lesion to be actually invasive in from 5 per cent at the Free Hospital for Women in Boston to 23 per cent at the Baptist Hospital in Memphis.[8]

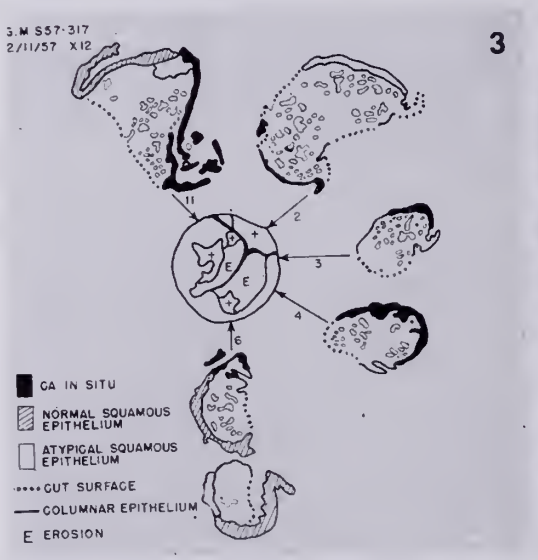
7. Carcinoma *in situ* is present on the surface at the margin of an invasive lesion, *provided* that the general region of the squamo-columnar junction has not been destroyed by the cancer.

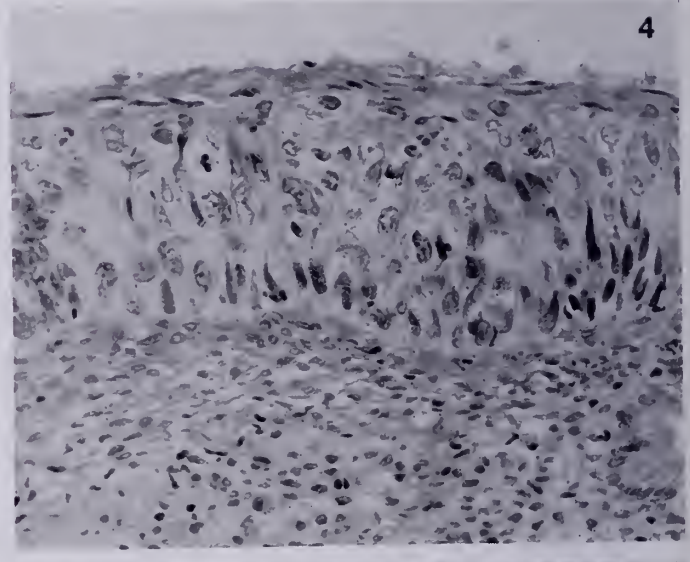
8. Similarly prepared histologic sections of *in situ* and invasive carcinoma show light-absorption values of comparable magnitudes.

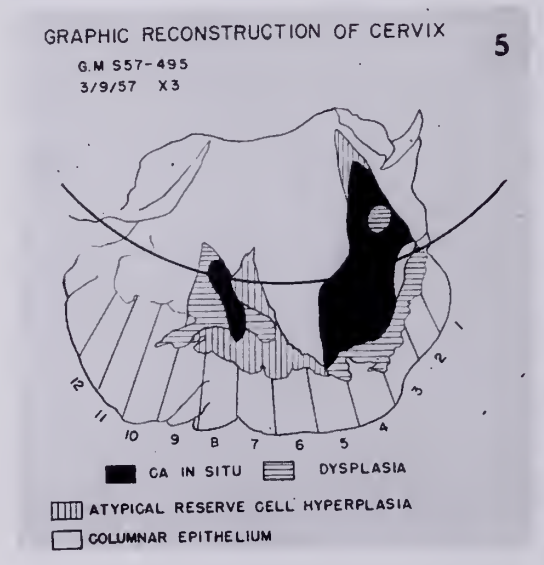
9. The vaginal smears from patients with his-


G.M. S57-67
1/7/57 X12
1
? CA IN SITU
NORMAL SQUAMOUS EPITHELIUM
CUT SURFACE
COLUMNAR EPITHELIUM
LEUKOHYPERKERATOSIS
E EROSION


2


G.M. S57-317
2/11/57 X12
3
CA IN SITU
NORMAL SQUAMOUS EPITHELIUM
ATYPICAL SQUAMOUS EPITHELIUM
CUT SURFACE
COLUMNAR EPITHELIUM
E EROSION


4


GRAPHIC RECONSTRUCTION OF CERVIX
G.M. S57-495
3/9/57 X3
5
CA IN SITU
DYSPLASIA
ATYPICAL RESERVE CELL HYPERPLASIA
COLUMNAR EPITHELIUM

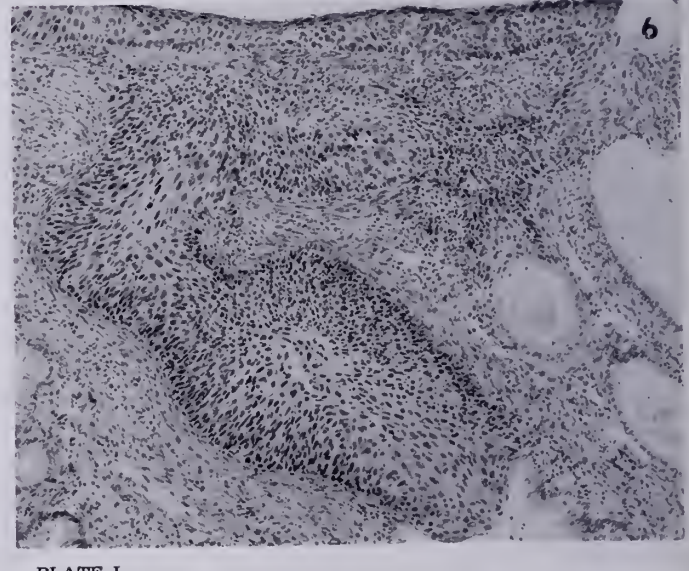

6

PLATE I

tologically demonstrable carcinoma *in situ* are positive in 70 per cent on initial screening, and in 82 per cent when the lesion is known to exist.

CLINICAL DIAGNOSIS

At present, we believe that carcinoma *in situ* is an asymptomatic disease except for the non-specific signs and symptoms of the frequently-associated chronic cervicitis. The job of looking for this disease thus falls to the obstetrician and the general practitioner, for it is they who see the younger women harboring the disease. Therefore, it is appropriate to speak to the members of the Iowa State Medical Society on this subject. It goes without saying that any patient who presents herself to a gynecologist for a routine check-up or with any gynecologic symptoms should be checked for the possibility of carcinoma *in situ* of the cervix.

Although there are no specific diagnostic signs in a cervix harboring carcinoma *in situ*, only 6-7 per cent occur in cervices which are covered with normal squamous epithelium up to the anatomical external os.[9]

There are two diagnostic tools which should be used routinely to augment the examination of the cervix: the Papanicolaou smear and the Schiller test. On initial screening in subsequently proven cases of carcinoma *in situ*, the vaginal smears were 70 per cent accurate,[10] but the cervical aspiration smears were 88.9 per cent accurate.[11] The Schiller test in a series of known carcinomas *in situ* was positive in 82.5 per cent.[1]

The first case will serve to show how carcinoma *in situ* was unexpectedlly picked up in the Boston Lying-in Hospital postpartum clinic and followed through to hysterectomy. G. M., a 34-year-old white housewife, gravida V, para II, was seen in the outpatient department eight weeks after delivering a six-month fetus which died shortly after birth. The fourth delivery had also been a six-month miscarriage, and the patient had been told she was "badly torn" after the delivery of her third child.

A routine vaginal smear was taken by inserting a glass pipette into the vagina and sampling the fluid in the lateral and posterior fornices. The material thus obtained was smeared on a glass slide and immediately fixed in the usual ether-alcohol solution (equal parts of each) before it had a chance to dry.

The cervix, exposed with a bi-valve speculum, was seen to be badly lacerated, with the laceration extending to the vault at "two o'clock." The cervical mucus was gently washed off, through the use of a cotton swab dipped in Zephiran solution, followed by a dry swab to soak up the excess solution. Surrounding the distorted external os was a large reddened area of clinical "erosion." The Schiller solution (one part iodine, two parts potassium iodide, 300 parts water) was applied, and crescent-shaped areas immediately surrounding the "erosion" failed to take the stain. Leukohyperkeratosis and leukoparakeratosis, immature squamous metaplasia, carcinoma *in situ* and carcinoma do not contain glycogen, and thus fail to stain with Schiller's solution. Normal columnar epithelium and pathologic erosions also fail to stain, but they are evident before the application of Schiller's solution. We thus knew that these non-staining areas brought out by the Schiller solution must be altered squamous epithelium. We were particularly suspicious of these positive non-staining areas, since they were contiguous with the "erosion" seen around the os, for it is at the squamo-columnar junction that we most often find carcinoma *in situ*.

The lesion was then biopsied using Dr. Paul Younge's rectangular punch. The first set of biopsies were taken at "twelve o'clock" (the midpoint of the anterior lip) and at "six o'clock" (the midpoint of the posterior lip). Since the entire abnormality consisting of the clinical erosion plus the Schiller-positive areas extended unusually far out beyond the external os, it took two contiguous biopsies, one above the other at each of these points, to span the lesion from external os to normal squamous portio epithelium. One cut surface of each of the biopsies was laid on paper, labeled and fixed separately in Bouin's solution. The technician was instructed to cut the sections parallel to the paper. A drawing of the cervix and the sites of the biopsies, and an

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PLATE I. Carcinoma *in situ* from G. M., a 34-year-old gravida V, para II.

Figure 1. Outline drawings of the intact cervix and histologic sections obtained by biopsy at eight weeks postpartum. The cervix, reduced in size, shows the T-shaped laceration of the external os surrounded by "eroded" and contiguous Schiller-positive areas. The tracings of the two histologic sections from the midpoint of the anterior lip are shown at the upper right of the cervix. The histologic sections from the midpoint of the posterior lip are shown at the lower left of the cervix. Each histologic section is shown as though removed and is like the section of an orange which has been laid on its side. Point A is inside the external os; B and B′ are contiguous points in the eroded area; and C is a point in the normal squamous epithelium. A to C thus shows the entire anterior or posterior lip at its midpoint.

Attention is called to the correlation between the clinical erosion and the histologic carcinoma *in situ*, the clinical Schiller-positive area and the histologic leukohyperkeratosis, and the clinically-normal epithelium and the histologically-normal squamous epithelium.

Figure 2. Detail of the epithelium from the biopsy AB taken at "twelve o'clock" in the region of the external os shown in Figure 1. This dysplastic epithelium covered the everted, clinically eroded endocervix. The smear was Group III. S-57-67 (12 Os) x 230.

Figure 3. Outline drawings of the intact cervix and histologic sections at 12 weeks postpartum, four weeks after the biopsies seen in Figures 1 and 2. These biopsies were taken at the anatomical external os at points corresponding to "two, three, four, six and eleven o'clock."

Figure 4. Detail of the epithelium from the biopsy taken at "three o'clock," showing carcinoma *in situ* covering the everted and clinically eroded endocervix. The smear was Group IV. S-57-317 (3) x 230.

Figure 5. Graphic reconstruction of the cervix incised at "twelve o'clock" and laid open, fixed in toto and then sectioned into 12 radial blocks. The half-circle represents the approximate line of the anatomical external os. The area below this line was visible to the clinician using a bi-valve speculum. Thus, the area above this line is the endocervical canal. The clinically visible portion consists of (a) the normal squamous epithelium, (b) the Schiller-positive areas which appear as dysplasia and atypical reserve-cell hyperplasia, and (c) the clinically eroded areas which are carcinoma *in situ* and normal columnar epithelium.

Figure 6. Histologic detail of a section cut from the "four o'clock" block of the surgically removed cervix, showing carcinoma *in situ* on the surface and in the glands of the endocervix. S-57-495 (4) x 65.

outline drawing of the histologic sections, are seen in Figure 1.

(It is vitally important to know the exact site of the biopsy and to obtain a vertically-cut, perfectly-oriented section. This is possible, but only if both the clinician and the technician are careful. It obviates the necessity of conization biopsy which we feel fails to orient the site of the tissue unless special care is taken to indicate the origin of the tissue. We believe a conization biopsy is usually too much of a procedure for diagnosis and is too little for therapy, except in the young woman whose uterus is to be preserved. Moreover, it is an inpatient procedure, whereas punch biopsies may be obtained either in the doctor's office or in the outpatient department of the hospital.)

Bleeding was easily controlled by means of oxycel gauze, pressure and tampons.

The vaginal smear was read as Group III, or suspicious for cancer.

The biopsies from the "eroded" area showed endocervical stroma entirely covered with dysplastic squamous epithelium having a parakeratotic surface (Figure 2). This epithelium filled many of the glands. The biopsies from the Schiller-positive area showed an atypical leukohyperkeratosis which was continuous with the dysplastic epithelium of the "erosion."

One month later, materials aspirated from the cervical os, as well as circumoral scrapings made with an Ayre spatula, were read as Group IV, or positive for cancer.

(It must be pointed out that the cervical scraping is a kind of biopsy—i.e., a visualization of living tissue—since it removes clumps of living epithelial cells without including the underlying stroma. Its advantage is that it requires less skill to obtain such specimens than to obtain a punch biopsy. Its disadvantages are that the site of the abnormal cells cannot be localized, nor is any stroma obtained by which to determine the potential of invasion. Thus, cervical scrapings are of a higher diagnostic value than vaginal smears or cervical aspirations, but less than carefully-taken biopsies.)

Since we knew the radial extent of the lesion, we took the next biopsies "around the clock" to determine the circumferential extent of the abnormality. The lesion, illustrated schematically in Figure 3, was then diagnosed as carcinoma *in situ*, as can be seen in Figure 4.

This case presented some difficult and interesting clinical problems. The patient was relatively young, and since her living children were by a previous husband, she was desirous of having more. During this second marriage, she had conceived twice and miscarried each time, possibly because of an incompetence of the cervical os. Although carcinoma *in situ* is known statistically to have an average latent period of about 10 years, we had no way of telling how long this patient had had her lesion, and hence when it might become invasive. Even so, another pregnancy might have been safely allowed if the os had been judged competent, but it was not. Since the lesion surrounded the extensive laceration, repair seemed hazardous. Therefore, a hysterectomy was done, with apparent complete removal of the lesion. The amount of vaginal cuff removed was determined by the Schiller test before surgery.

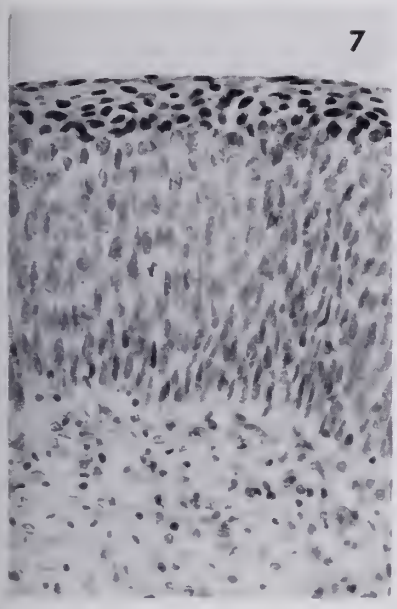
The cervix was opened at "twelve o'clock" and pinned out on a paraffin block before fixation in Bouin's solution. Photographs were taken of the fresh tissue before and after staining with Schiller's solution. Twelve blocks were cut, corresponding with "o'clock" designations, and each block had a random section cut from it for histologic examination. A graphic reconstruction of the surface extent of the lesion was made by superimposing the projection of the lesion in the histologic sections onto a tracing of the similarly enlarged photograph of the opened cervix. It will be seen in Figure 5 that the lesion extended from the Schiller-negative area on the portio far up into the endocervical canal. Glands were involved, but there was no microscopic evidence of stromal invasion (Figure 6).

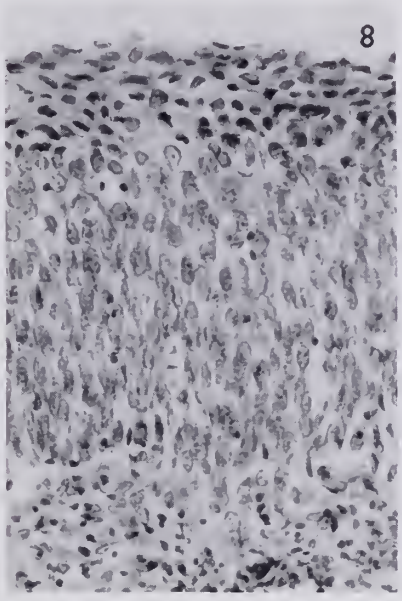
PATHOLOGIC DIAGNOSIS

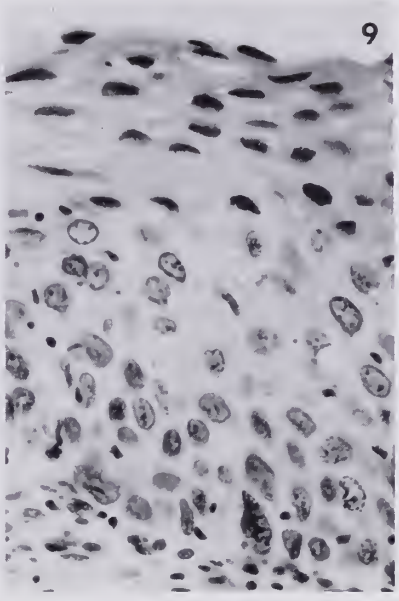
The terminology used to describe the normal changes of the cervix in pregnancy varies from laboratory to laboratory. Thus, with the next group of cases, we shall define the terminology used in this laboratory. The present observations come from a study of 350 pregnant patients selected at random in the prepartum clinic of the Boston Lying-In Hospital. All were biopsied during various stages of pregnancy, and subsequently many of them were re-biopsied during the postpartum period.

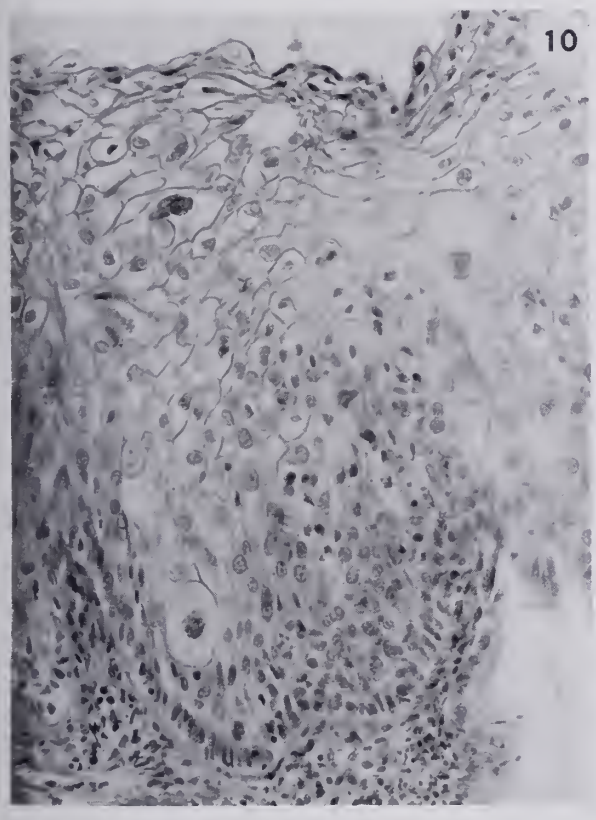
The squamo-columnar junction in the normal virginal cervix is assumed to be at the anatomical external os, where the squamous and the columnar epithelium are contiguous. Moreover, the first endocervical gland should open onto the columnar side of the junction. Actually, this was never observed in our series. In all cases, there was some replacement of the endocervical columnar epithelium by squamous epithelium in various stages of maturity.

We believe that there are two distinct processes by which this replacement can occur. First, there is the healing process by which the pathologic or true erosion—in fact an ulcer of the endocervix—is repaired. The stroma, thus exposed, is devoid of epithelium and is acutely and/or chronically inflamed. The normal squamous epithelium then flows over the denuded area from one side, and the columnar, which is less active, slowly flows to meet it. This overglide is first seen as a single layer of flattened cells along the surface of the inflamed stroma. As soon as the gap has been bridged, the cells from the squamous side show









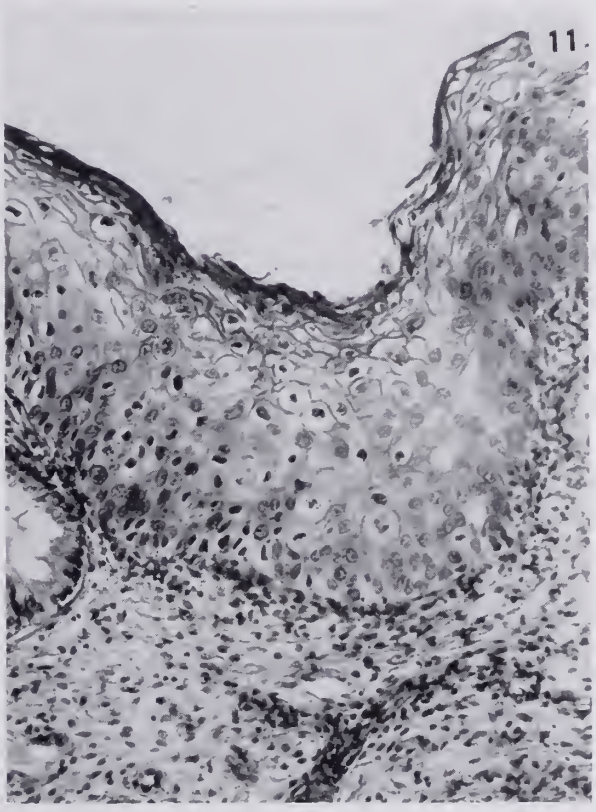


PLATE II. Lesions of the cervical epithelium which are confused with carcinoma *in situ* or with precancerous lesions.

Figure 7. Basal-cell hyperplasia of reserve-cell origin covering the everted endocervix from S. S., a 25-year-old, white gravida V, para V at eight weeks postpartum. This lesion showed evidence of regression in 17 months. The smear was Group I. S-54-1638 x 230.

Figure 8. Basal-cell hyperplasia arising from reserve cells in the endocervix from T. C., a 35-year-old Chinese gravida VI, para V at eight weeks postpartum. This lesion remained for 18 months. The smears were from Group I to Group III. S-54-924 x 230.

Figure 9. Dysplastic squamous epithelium arising from reserve cells in the endocervix of M. W., a 33-year-old, white gravida III, para III at 10 months postpartum. This epithelium has remained unchanged for six years. The smears were from Group I to Group III. S-52-1380 x 200.

Figure 10. Dysplastic squamous epithelium covering the everted endocervix of E. M., a 27-year-old, white gravida I, para I at eight weeks postpartum. This abnormality regressed in three months, and the cervical epithelium has remained normal throughout a subsequent pregnancy and a 2½-year follow-up period. The smear was Group I. S-55-927 (A) x 200.

Figure 11. Dysplastic squamous epithelium covering the surface and in the glands of the everted endocervix of H. B., a 34-year-old, white gravida VII, para VII at 14 months postpartum. This epithelium has remained unchanged for three years. The smears were Group III. S-56-505 (6) x 200.

evidence of active growth, with frequent mitoses. This process is properly called "erosion healing." The squamous element of this process has been mistakenly called "epithelization" (conversion to epithelium); "epidermidalization" (conversion of columnar to squamous epithelium); "epidermization" (the process of covering or becoming covered with epidermis); and "epidermidization" (actually not defined in the medical dictionary).

The second process occurs in the exposed endocervix whose columnar epithelium is intact (clinical eversion) as well as in the non-exposed endocervical canal. Reserve cells normally seen under the columnar epithelium proliferate in response to unknown stimuli, one of which may be hormonal, since this process occurs most commonly in the fetus and in the pregnant woman. Such cells become hyperplastic, then become metaplastic and ultimately form squamous epithelium. This process we call "squamous metaplasia," designating the interim stages "reserve cell proliferation," "reserve cell hyperplasia" and "reserve cell metaplasia."

The origin and nature of these reserve cells are in dispute.[12]

These reserve cells appear to be capable of forming columnar epithelium and glands; even the metaplastic epithelium can be laid down in a glandular form with a lumen in the center (the epidermoi"dalization" of German authors). This we call "adenomatoid reserve-cell activity." The fact that mucoid secretion is occasionally seen in squamous epithelium of reserve-cell origin during pregnancy is undoubtedly related to the relatively high incidence of muco-epidermoid carcinomas in a series of cervical carcinomas associated with pregnancy.

In a study of 2,489 cases of cervical carcinoma (non-pregnant and pregnant), Glücksmann found 87 per cent were squamous cell, 5.1 per cent were adenocarcinomas and 7.9 per cent were mixed adenosquamous carcinomas. Of the 65 cases of cancer in the pregnant women from this series, however, only 40 per cent were squamous, 9 per cent were adenocarcinomas, and 51 per cent were of the mixed variety.[13]

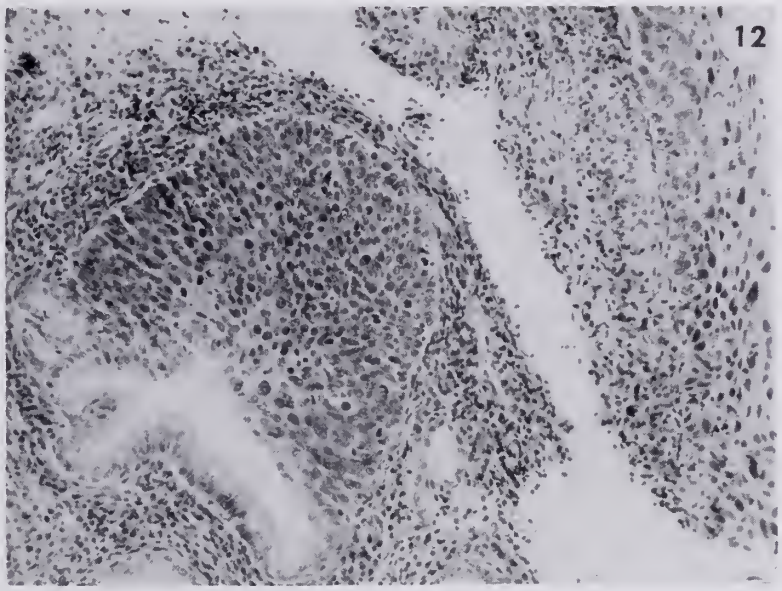
There has been some controversy about the lesions that mimic carcinoma *in situ* during pregnancy but regress after delivery. The next five cases, illustrated by Figures 7 through 11, show the two types of atypical squamous epithelium which, although not to be confused with carcinoma *in situ*, might be considered as possibly precancerous lesions.

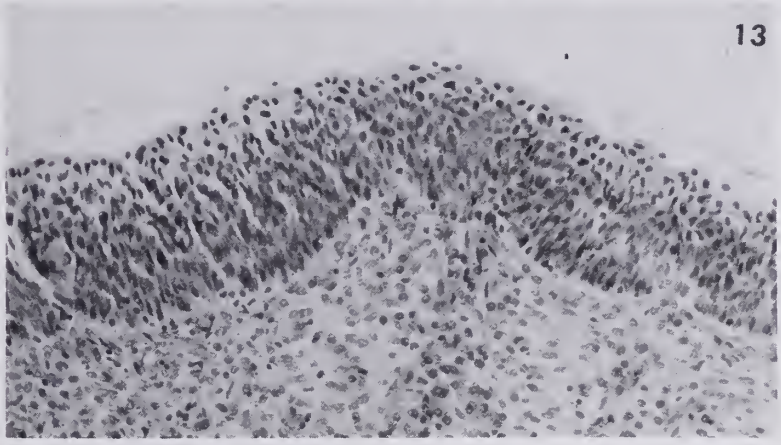
The first type, seen in Figures 7 and 8, is a proliferation of what appear to be basal cells, although some of them may actually be immature prickle cells. The extent of this proliferation varies from case to case. Figure 7 shows basal cells occupying four-fifths of the epithelium, with an increased number of mitotic figures, some of which are well removed from the basement membrane. This epithelium was seen over the exposed endocervix, starting at the squamo-columnar junction and extending over, but not into, the endocervical glands. Clinically, there was a circumoral "erosion" around the external os of the cervix at eight weeks postpartum. The "basal" cells, over a period of 12 months, matured to prickle cells, the clinical erosion became smaller and the smear remained Group I.

Figure 8 shows a similar type of epithelium from another patient. This epithelium was on the surface of the endocervix, but was also in the glands. The polarity of the cells was not so uniform as in the first case, and there was some nuclear hyperchromatism and pleomorphism. The mitotic figures were more frequent, and generally nearer the surface. This lesion was seen seven weeks following the delivery of the sixth pregnancy in a cervix which had a circumoral "erosion," with contiguous non-staining Schiller-positive areas of squamous epithelium. Subsequent biopsies taken one year, 18 months and 21 months postpartum showed a similar type of epithelium. This epithelium originated as a result of reserve-cell hyperactivity, starting at the squamo-columnar junction and covering the endocervix. Smears have varied from Group I to Group III. We use the term " basal cell hyperplasia of reserve cell origin" to designate this type of lesion. Nesbitt uses the term "basal cell hyperactivity" to include this lesion as well as varying degrees of basal-cell hyperactivity of the portio vaginalis.[14]

Figure 9 shows a type of epithelium which formed under columnar cells. Columnar cells were seen on the surface of identical epithelium in another area of the same biopsy and subsequent biopsies. The lower two-thirds of this epithelium was composed of cells which had many of the morphologic properties of malignancy without invasion. It appeared on the surface and in the glands of the endocervix. This was first seen 10 weeks postpartum, following the third pregnancy of a 33-year-old patient. There was a large circumoral area of non-staining squamous epithelium. This remained unaltered histologically for six years, with the exception of one set of biopsies taken at the beginning of the fifth year in which "basal" cells occupied nine-tenths of the epithelium in some areas. Polarity of these "basal" cells, however, remained normal, and there was no hyperchromatism or pleomorphism. Smears have varied from Group I to Group III during these six years. The Schiller-positive area contiguous to the os remains over most of the portio. The patient is currently being followed.

The next case (Figure 10) illustrates what we interpret as dysplastic squamous epithelium of unknown origin. It may be derived from portio squamous epithelium (erosion healing), or it may be of endocervical origin through reserve-cell metaplasia. This dysplastic epithelium extended from the squamo-columnar junction well up





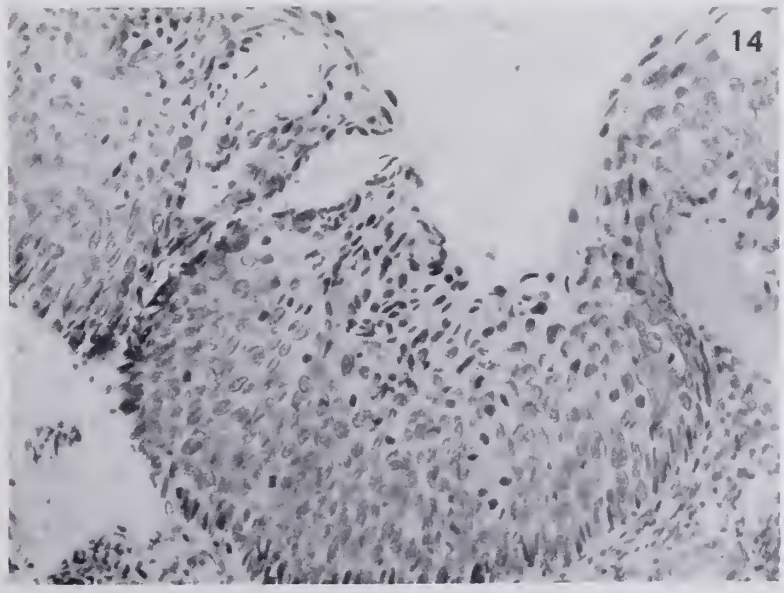


PLATE III

Figure 12. Carcinoma *in situ* in a gland of the everted cervix and dysplastic squamous epithelium covering the surface (seen at the extreme right of the photograph) from M. M., a 34-year-old, white gravida III, para III at eight weeks postpartum. This epithelium survived a subsequent pregnancy and cauterization. It was removed by conization three years after this biopsy was taken. The smears were Group I and Group V. S-53-317 x 170.

Figure 13. Basal-cell hyperplasia of epithelium covering the everted endocervix of B. H., a 30-year-old, white gravida V, para V, at eight weeks postpartum. The smear was Group III. S-52-1464 x 200.

Figure 14. Carcinoma *in situ* from the same patient four years after the biopsy shown in Figure 13. The smear was Group V. This lesion was removed by conization. S-56-1124 x 200.

into the endocervical canal. Unlike the epithelia seen in Figures 7 and 8, this epithelium is easily recognizable as stratified squamous in type, with good cornification, although there are bizarre cells and mitoses relatively high up in the cornified layer. It should be noted that the basal cells, seen as a single layer at the base of the epithelium, remain normal. Therefore, the disturbance would appear to occur in the maturation of prickle cells. This biopsy was taken from a Schiller-positive area contiguous with the external os in a 27-year-old patient eight weeks after the delivery of her first child. The cervix, always well covered with squamous epithelium, became Schiller-negative three months after the original biopsy. The patient was followed through another pregnancy and postpartum period. The lesion was never seen again, although the junction was adequately biopsied in the same and adjacent areas. The original smear and three subsequent smears remained negative (Group I).

Figure 11 shows dysplastic squamous epithelium similar to that in Figure 10. This epithelium differs, however: (1) the basal layer is abnormal, (2) there is surface parakeratosis and (3) glands are involved as well as the surface. Its biologic importance appears to be the fact that, although it was first found during the twenty-ninth week of the patient's seventh pregnancy and resembles the evanescent lesion in Figure 10, it has persisted for three years postpartum. Of additional interest is the fact that at the time of the first biopsy (twenty-ninth week of pregnancy), the cervix was clinically normal both before and after the application of Schiller's iodine. Hence, a biopsy would not ordinarily have been performed, except as a part of a random study. The cervix did, however, become eroded and Schiller-positive at eight weeks postpartum, and has remained so to the present time, 2½ years later. Smears have been consistently Group III.

We do not have the courage to follow carcinoma *in situ* through to invasion. As soon as the pathologist makes a definite diagnosis of carcinoma *in situ*, definitive therapy is instituted immediately. It sometimes happens, however, that a case is inadvertently left untreated because the patient moved away, refused treatment or was misdiagnosed. The next three cases were left untreated for periods of between 3½ and 4 years before therapy was instituted.

Figure 12 shows the initial biopsy from a 34-year-old patient eight weeks after the delivery of her third child. The cervix had a Schiller-positive area contiguous to the anatomical os at the midportion of the posterior lip. The diagnosis of carcinoma *in situ* with gland involvement was made histologically. A subsequent set of biopsies taken two weeks later, however, failed to show any comparably disturbing lesion histologically, even though the cervix around the external os was adequately sampled. The smear was read as Group I. The cervix was not critically inspected again until two years later—eight weeks after the delivery of the patient's fourth child. Then, a "polypoid circumoral erosion" was cauterized, but no histologic investigation was made, probably because of the apparently negative second set of biopsies two years before. Eighteen months after cautery and 3½ years after the initial positive biopsy, we got in touch with the patient and asked her to return to our clinic. At that time the cervix was found to contain an area of altered epithelium about the external os which did not stain with Schiller's solution. This Schiller-positive area was biopsied at four quadrants. At "six o'clock" there was dysplastic squamous epithelium starting at the squamo-columnar junction and extending over the surface of the endocervix. At "nine o'clock," only endocervix was obtained, the surface of which was covered with dysplastic epithelium of unknown origin. The smear was Group V. A cold-knife conization, done within the week, showed areas of carcinoma *in situ* in blocks corresponding to "six, seven, eight, nine and ten o'clock." The lesion had remained localized to the squamo-columnar junction and had not involved the glands. The surgical procedure appeared to have been therapeutic. The patient is being followed in another state by a private physician.

The points illustrated by this case are:

1. One negative follow-up examination is not a sufficient basis on which to rule out removal of the lesion by biopsy.

2. Cautery is not an adequate treatment for carcinoma *in situ*, although some have been cured unwittingly in this manner.[4]

3. Carcinoma *in situ* with gland involvement persisted throughout a subsequent pregnancy, neither regressing nor becoming invasive carcinoma.

The case seen in Figures 13 and 14 represents a four-year follow-up without treatment of a lesion which had originally been called carcinoma *in situ*. In retrospect, however, it was diagnosed as a severe basal-cell hyperactivity extending to within one or two cell layers of the surface. The outer layer was made up of cells thought to be columnar in type. This epithelium was seen over the surface of the everted endocervix; no squamo-columnar junction was sampled. The first biopsy was taken eight weeks after the delivery of the 30-year-old patient's fifth child (Figure 13). The entire cervix and a portion of the vagina were Schiller-positive. Inadequate biopsies around the external os were taken two weeks later and showed no abnormality. Seventeen months later, the cervix was Schiller negative, but there was a small circumoral erosion which was biopsied at four points. Again, the samples were inadequate and failed to show any lesion. The patient did not return to the clinic as she had been directed to do, and remained away until 2½ years later, or four years after the first positive biopsy. At that time, six biopsies were

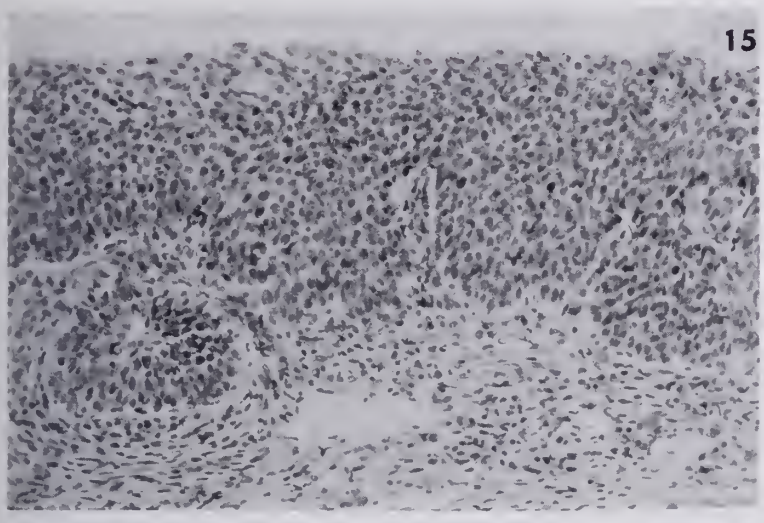


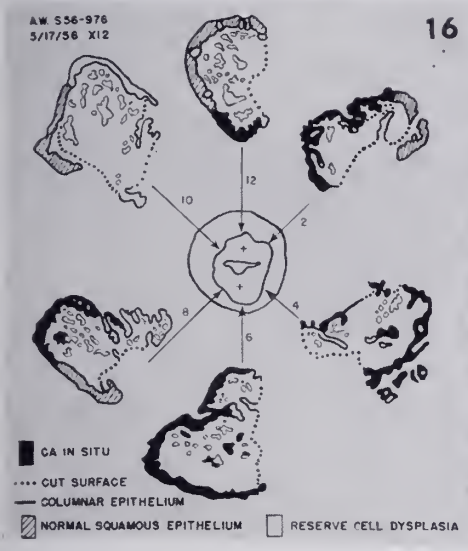
PLATE IV. Carcinoma *in situ* from A.W., a 37-year-old, white gravida IV, para IV.

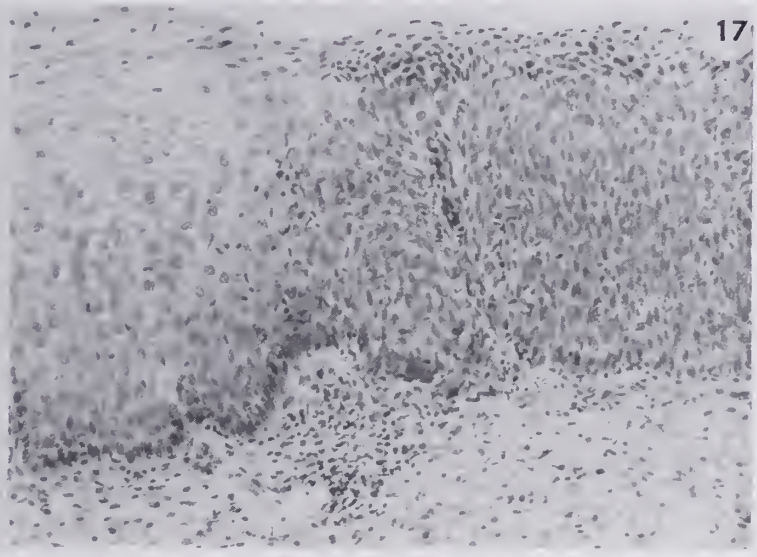
Figure 15. Carcinoma *in situ* arising in reserve cells in the endocervix at 8½ months postpartum. The smear was Group II. S-53-165 x 180.

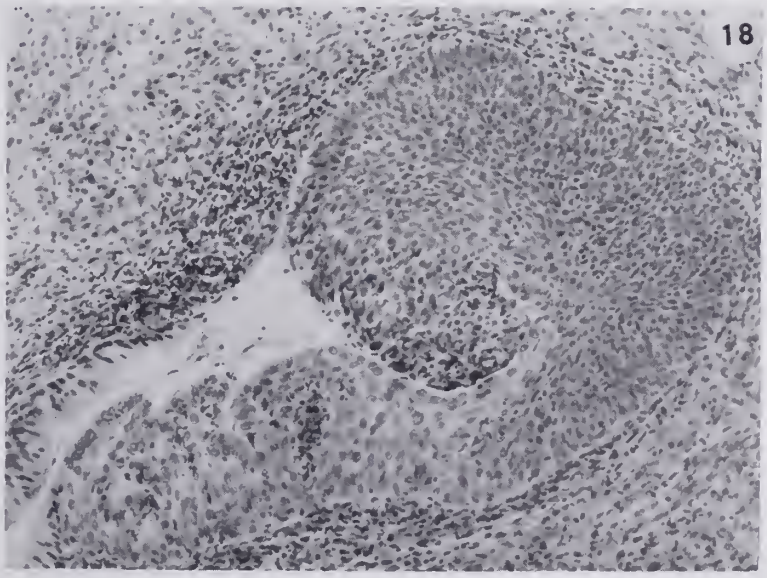
Figure 16. Outline drawings of the intact cervix and histologic sections obtained by biopsy 3½ years after the initial biopsy shown in Figure 15. Biopsies were taken at the external os from the circumoral Schiller-positive area at points corresponding to "two, four, six, eight, ten and twelve o'clock." It will be noted that the clinical Schiller-positive area corresponds to the histologic carcinoma *in situ*.

Figure 17. Detail of the junction of normal squamous epithelium and carcinoma *in situ* from the biopsy taken at "eight o'clock" which is illustrated in Figure 16. S-56-976 (8) x 170.

Figure 18. Detail of the epithelium in the gland which can be seen under the junction area in Figure 16 at "eight o'clock." Attention is drawn to the carcinoma *in situ* which fills the gland (on the right side of the photograph) and is contiguous to benign squamous metaplasia. The smear was Group V. S-56-976 (8) x 110.







taken. One at the midpoint of the anterior lip showed marked dysplasia and basal-cell hyperactivity (Figure 14). This was interpreted as carcinoma *in situ* by some of the pathologists who reviewed the slide. A cold-knife conization done within three weeks showed an extensive pathologic erosion (lack of epithelium) in all 16 blocks. Minute foci of traumatized* epithelium showing only the basal layer were seen at the junction and farther up in the canal in four blocks. The patient has been closely followed, and the smears have been Group I during the past two years.

The final case, seen in Figures 15-18, is presented as a good morphologic example of carcinoma *in situ* of reserve-cell origin. It is important because is shows probable progression from reserve-cell hyperplasia to carcinoma in situ over a three-year period.

This 37-year-old patient came to the clinic 8½ months after the delivery of her fourth child, and her complaint was leukorrhea. The cervix had a papillomatous circumoral erosion, with a contiguous Schiller-positive area at "ten o'clock." The smear was Group II. Biopsy showed carcinoma *in situ* with gland involvement in one of two specimens (Figure 15). In the course of the following nine months, 22 biopsies were taken. Carcinoma *in situ* was seen in four of them, reserve-cell hyperplasia in 10, and no lesion in the remaining eight. Vaginal smears were Group II, and cervical smears were Group IV. The patient refused treatment. She was persuaded to return to our clinic 2½ years later. An area of altered squamous epithelium encircling the os was Schiller positive. The smears were Group V. Five of the six biopsies taken around the clock showed carcinoma *in situ* with gland involvement (Figures 16, 17 and 18). Simple hysterectomy was performed, and the lesion was seen on reconstruction to extend from the normal squamous epithelium of the portio up into the endocervical canal from "twelve" to "seven o'clock." There was no stromal invasion in these microscopic sections.

DISCUSSION

Since the age group of women having carcinoma *in situ* is apparently about 10 years younger than that of women who have invasive carcinoma, and since cervical carcinoma is primarily a disease of parous women, it behooves the obstetrician to become acquainted with the methods of diagnosis and follow-up for carcinoma *in situ* in pre- and postpartum patients. Furthermore, close cooperation between clinician and pathologist is necessary for diagnostic success.

1. *The Prepartum Examination.* Papanicolaou smears may be done during the prepartum period, thus allowing cauterization at the first postpartum visit. Since smears are costly, we find that the cervical-os aspiration, combined with Ayre scraping, is the most useful for diagnosis of cervical disease. Every cervix should then be inspected before and after staining with Schiller's solution. Cervices which have Schiller-positive areas should be further investigated, particularly if those positive areas are contiguous to the os or to an "erosion." Even if the smear is negative, the Schiller-positive area itself should be scraped and smeared. If the smear is Group III, IV or V, biopsies should be taken in a step-like fashion from the os through the positive area. If the lesion is dysplasia, basal-cell hyperactivity or carcinoma *in situ,* the circumferential extent of the lesion must be determined by a second set of biopsies taken around the os. It is then up to the pathologist and the clinician to decide whether the patient can safely deliver her baby. If there is no microscopic evidence of invasion, we allow the pregnancy to continue, following the course of the lesion with smears and a set of biopsies between the thirty-sixth and the thirty-eighth weeks of gestation. Reevaluation and decision as to procedure are made at six weeks postpartum.

2. *The Postpartum Examination.* In all patients, the cervix should be reexamined at the postpartum visit. If any Schiller-positive areas have developed or if the existing positive area has enlarged, all three Papanicolaou smears must be repeated and the Schiller-positive area biopsied.

All "erosions" in patients whose prepartum smear was negative should be thoroughly cauterized and reinspected after three months. Every cervix should be healed with squamous epithelium down to the "round" external os. This includes the area which everts when the speculum spreads apart a lacerated "os."

3. *The Abnormal Lesions.* The dysplastic and anaplastic lesions seen during pregnancy and the postpartum period have not yet been classified pathologically. We have not yet reached the stage where we can look at one of these lesions and predict what will happen if it is left untreated, but we have good evidence that the lesion can be followed through a present or even a subsequent pregnancy with safety, before radical therapy becomes necessary. It is imperative, however, that reevaluation be made continually in these cases.

SUMMARY

1. A definition of carcinoma *in situ* has been given, and the circumstantial evidence that it is the precursor of invasive carcinoma has been reviewed.

2. Clinical recognition of the disease has been discussed, and a case of carcinoma *in situ* has been used to show how smears are taken, how the cervix is properly inspected and how the Schiller test is interpreted.

3. Definitions have been given of the normal epithelial changes seen in pregnancy.

4. The abnormal lesions which remain, regress

* Such trauma was presumably due to passage of the sound during conization.

or progress to carcinoma *in situ* have been presented through case reports.

5. A plea has been made to all general physicians, obstetricians and gynecologists to ferret out this disease.

ACKNOWLEDGMENTS

We are indebted to Dr. Crawford Hinman and Dr. Charles Easterday, of the Department of Obstetrics, for the original biopsies on four of the cases.

The photomicrographs were made by Mr. Leo Goodman and Mr. Ralph Glazier.

The outline drawings were made by Mr. Glazier.

REFERENCES

1. Younge, P. A.: Cancer of uterine cervix, a preventable disease. Obst. & Gynec., **10**:469-481, (Nov.) 1957.
2. Hertig, A. T., and Mansell, H.: Tumors of female sex organs, Part 2, Vulva, vagina and uterus; Atlas of Tumor Pathology, Section IX, Fascicle 33. Washington, D. C., Armed Forces Institute of Pathology. In press.
3. Sommers, S. C., Hertig, A. T., and Bengløff, H.: Genesis of endometrial carcinoma: II. Cases 19 to 35 years old. Cancer, **2**:957-963, (Nov.) 1949.
4. Younge, P. A., Hertig, A. T., and Armstrong, D.: Study of 135 cases of carcinoma *in situ* of cervix at Free Hospital for Women. Am. J. Obst. & Gynec., **58**:867-895, (Nov.) 1949.
5. Hertig, A. T., and Younge, P. A.: Debate: what is cancer *in situ* of cervix? Is it preinvasive form of true carcinoma? Am. J. Obst. & Gynec., **64**:807-815, (Oct.) 1952. [Discussion, pp. 825-832.]
6. Hertig, A. T., and Mansell, H.: What is carcinoma *in situ*? CA: a bulletin of cancer progress, **6**:196-202, (Nov.) 1956.
7. Reagan, J. W.: Personal communication.
8. Trumbull, M. L.: Study of carcinoma *in situ* of cervix. Memphis M. J., **28**:114-117, (Sept.) 1953.
9. Younge, P. A.: Personal communication.
10. Achenbach, R. R., Johnstone, R. E., and Hertig, A. T.: Validity of vaginal smear diagnosis in carcinoma *in situ* of cervix. Am. J. Obst. & Gynec., **61**:385-392, (Feb.) 1951.
11. Friedell, G. H.: Unpublished data from 235 cases of carcinoma *in situ* at Free Hospital for Women.
12. Fluhmann, C. F.: Histogenesis of squamous cell metaplasia of cervix and endometrium. Surg. Gynec. & Obst., **97**:-45-58, (July) 1953.
13. Glücksmann, A., and Cherry, C. P.: Incidence, histology and response to radiation of mixed carcinomas (adenoacanthomas) of uterine cervix. Cancer, **9**:971-979, (Sept.-Oct.) 1956.
14. Nesbitt, R. E. L., Jr.: Basal-cell hyperactivity of cervix in pregnancy with postpartum follow-up. Obst. & Gynec., **6**:-239-253, (Sept.) 1955.

Possible Relationship Between

Blood Cholesterol Levels and Arteriosclerotic Heart Disease

A Study of 86 Physicians

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DES MOINES

THE PURPOSE OF THIS study was to reveal the relationships between blood lipid levels and arteriosclerotic heart disease. The study was based on the supposition that an elevated blood cholesterol level predisposes to the formation of atherosclerotic lesions. This concept that arteriosclerotic heart disease is somewhat related to lipid metabolism follows from several attractive lines of reasoning: (1) The lesions themselves contain lipids in considerable quantity. (2) Lesions have been produced in animals by feeding them high-lipid diets (mostly cholesterol and saturated fats), or by altering their lipid metabolism in some other way. (3) It has been observed that patients and populations characterized by hypercholesterolemia, caused either by diseases such as diabetes, hypothyroidism or nephrosis, promoted by a high-fat diet, or present for some unexplained reason, are susceptible to the development of atherosclerotic lesions.

In simpler phraseology, the problem can be stated as follows. Some peculiarity of lipid metabolism or imbalance predisposes to pathologic changes in the walls of blood vessels, consisting mainly of lipid accumulation and accompanying tissue-foreign body reaction. Cholesterol itself is not an inert substance in the circulating blood, but has a very active metabolic cycle which is not entirely understood. It can be synthetized from acetate radicals, and it is found in the blood and tissues even when totally absent from the diet. It is continuously excreted into the gastrointestinal tract via the bile, and is reabsorbed—as is ingested cholesterol—from the intestinal tract in a continuous cycle. Cholesterol is apparently the precursor of many of the steroid hormones.

If we assume that a raised level of blood lipids (specifically cholesterol) has something to do with arteriosclerotic heart disease, than we must find out what factors may give a raised cholesterol value. Many factors have been said to affect blood lipid levels. Endocrine and sex differences, intakes of saturated and unsaturated fats, heredity, obesity, age, stress, hemodynamic factors, dietary imbalances, race, occupation—all these have been suggested as possible causes of elevation. In this

study, we have tried to test as many of these pathways as possible through measurements and questions, and still keep the study within time limits.

PROCEDURE

The core of the data collected was the determination of the total free and esterified serum cholesterol values for each subject used in the study. These values were then compared with other variables such as body weight, dietary habits, age, family history of circulatory disease and personal history. In addition to the medical staff of the hospital, the study originally included a group of hospitalized patients who had a vascular disease of some kind (mainly arteriosclerotic heart disease). Several difficulties arose, however, which made this a poor experimental group, and it was decided to omit the patients from the study. Those difficulties will be discussed later.

The data were collected as follows. A staff physician was asked to come in on a particular morning in a fasting condition. Blood samples of 5 cc. in heparin were secured from him and were analyzed for total free and esterified cholesterol according to a variation of the Bloor method (a chloroform extraction and Liebermann-Burchard color reaction). The subject was also asked several questions concerning his dietary habits, especially with respect to intake of fats, family history and personal history of circulatory disease. Diabetes and hypertension were counted as positive histories, as well as such obvious diseases as arteriosclerotic heart disease, myocardial infarction and coronary occlusion. Age, height, weight and blood pressure values were also obtained. From the dietary intake, an approximate animal-fat intake (the animal fats containing highly-saturated fatty acids) was estimated from the subject's report of his accustomed ingestion of butter, milk, meat and eggs, since these are the major sources of animal fat in the diet. This estimate was expressed in grams per week. A weight range for each subject was devised from his height, weight and body build. The subject's family history was broken down into several major categories.

From the basic cholesterol measurements, a calculation was made of the ratio of total cholesterol to esterified cholesterol, but the total cholesterol value was used most frequently in comparisons. These, then, were the raw data that were used in comparisons: (1) grams of animal fat ingested per week, (2) total cholesterol, (3) free cholesterol, (4) esterified/total cholesterol ratios, (5) age, (6) body weight, and (7) possible hereditary patterns of disease. Rather than the less-accurate medians or modes, arithmetic means were used in comparisons, and statistical methods were used in checking their significance.

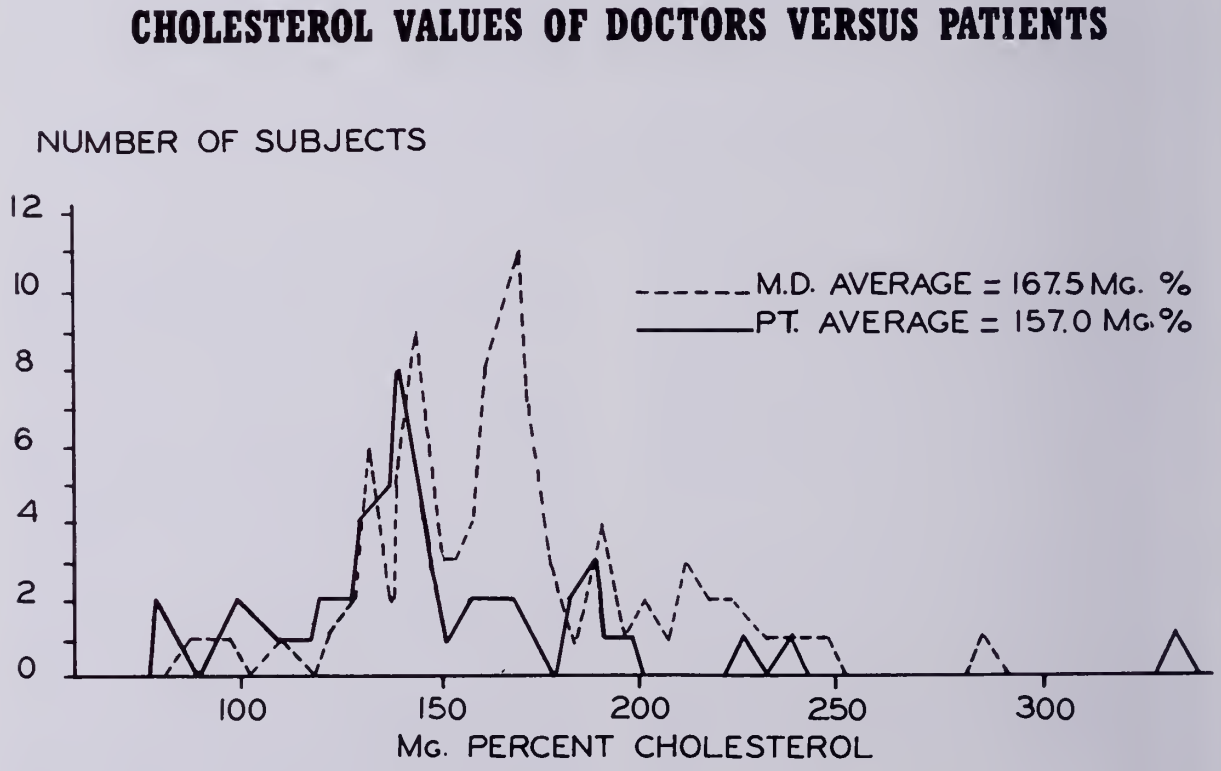


Figure 1. This chart illustrates a comparison of the total blood cholesterol values of the 86 physicians and the patients in the original study group. Because of factors which could not be controlled, the patients were later dropped from this study. These data are included, however, because they indicate a lower mean cholesterol level for the patients than for the physicians, even though the patients had been admitted to the hospital primarily for arteriosclerotic heart disease.

RESULTS

The average total cholesterol value for the group of 86 physicians was found to be 167.5 mg. per cent, with a 1 standard deviation of 26.3. The average milligrams per cent cholesterol for the patient group was found to be 157. Both distributions formed normal distribution curves (Figure 1).

The physician subjects were broken up into three weight groups for comparison of age, diet and mean total cholesterol values. The above-normal weight group (46 subjects, or 53.4 per cent) was found to have a mean total cholesterol value of 172.9 mg. per cent, a mean animal-fat ingestion per week of 482.3 Gm., and an average age of 45.4 years. The normal-weight group (32 subjects, or 38.44 per cent) was found to have a mean total cholesterol value of 160.9 mg. per cent, a mean animal fat per week of 503 Gm., and a mean age of 39.8 years. The below-normal weight group (8 subjects, or 9.3 per cent) was found to have a mean total cholesterol value of 156.7 mg. per cent, a mean animal fat per week of 582.3 Gm., and an average age of 39.2 years. All the subjects (86, or 100 per cent) were found to have a mean total cholesterol value of 167.5 mg. per cent, a mean animal fat per week of 499.3 Gm., and an average age of 42.8 years (Table 1).

When the grams of animal fat per week for each subject was compared with the subject's total cholesterol value, an essentially straight-line distribution pattern was seen (Figure 2). The variations at the extremes appear to reflect the fact that the points plotted there represent no more than a few subjects. A very similar curve resulted when diet was plotted against esterified/total cholesterol ratios.

A comparison of age groups against total cholesterol values gives an interesting picture. The 30-39 year (inclusive) group showed the highest mean total cholesterol, with the exception of the 80-89 year group, and there was only one subject in that category. The 40-49 year group and the 50-59 year group had progressively less high mean total cholesterol values, until another peak of 172 mg. per cent was reached by 60-69 year group (Figure 3).

When heredity was introduced as a factor, a re-

TABLE 1
DIVISION OF PHYSICIANS INTO WEIGHT GROUPS

	Number of Subjects	*Mean Total Cholesterol in Mg. Per Cent*	*Mean Animal Fat Intake in Gm./Week*	*Mean Age in Years*
Above normal weight	46	172.9	482.3	45.4
Normal weight	32	160.9	503.0	39.8
Below normal weight	8	156.7	582.3	39.2
All subjects	86	167.5	499.3	42.8

GRAMS OF ANIMAL FAT PER WEEK AGAINST TOTAL CHOLESTEROL

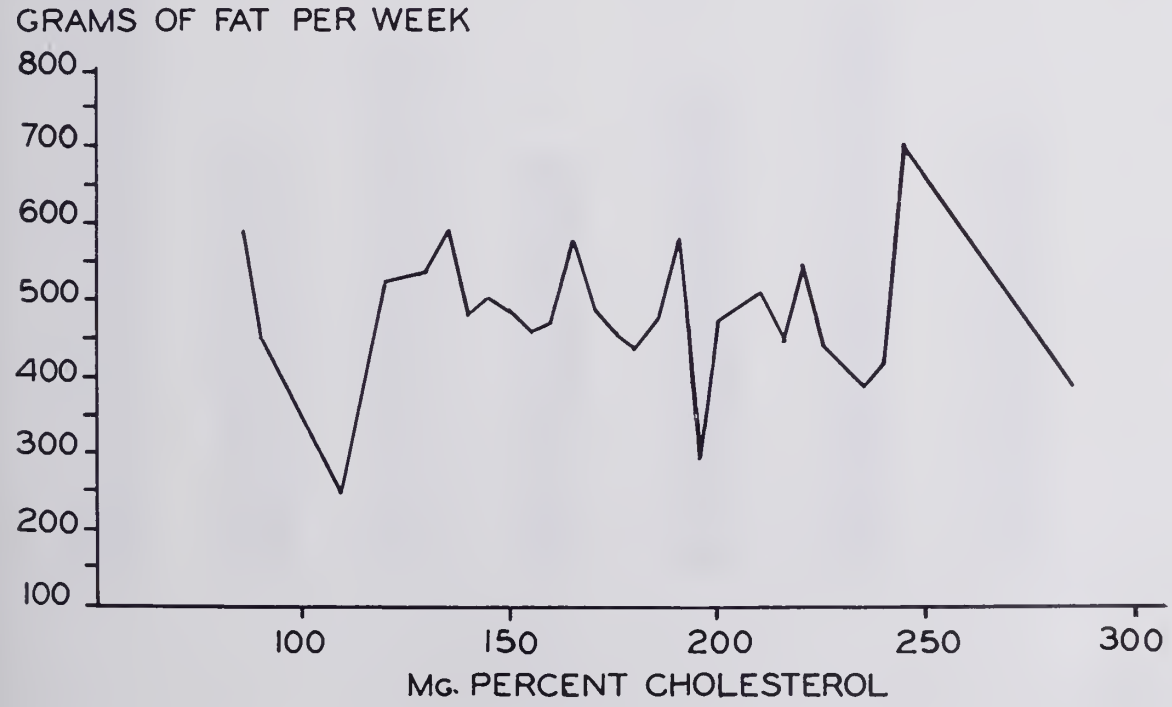


Figure 2

lationship between it and total cholesterol value suggested itself. When no family history of cardiovascular disease was present (33 subjects), the mean total cholesterol value was found to be 158.9 mg. per cent. When the father of the subject had a cardiovascular-disease history (22 subjects), a mean cholesterol value of 170.5 mg. per cent was observed. Of those subjects having mothers with cardiovascular disease (30 subjects), the average cholesterol was 172.1 mg. per cent. Those subjects whose parents had both been affected by cardiovascular disease (12 subjects) had a mean total cholesterol reading of 163.7 mg. per cent. In subjects having brothers or sisters with cardiovascular problems (12 subjects), the mean figure was 188 mg. per cent, or 29.9 mg. per cent greater than those with negative family histories. For those with grandparents having histories of cardiovascular disease (18 subjects), the mean total cholesterol value was 185.3 mg. per cent. When subjects having personal histories (arrhythmias included) were grouped together, they had a mean total cholesterol value of 181.4 mg. per cent (Figure 4).

An analysis of the seven subjects with high values for cholesterol showed a 100 per cent incidence of positive family history. An overweight condition was found in 70 per cent, their dietary intake of animal fat per week was 492.8 Gm., and their average age was 36.8 years (Table 2).

TABLE 2

ANALYSIS OF THE SEVEN SUBJECTS WITH HIGHEST CHOLESTEROL VALUES

Have family histories of circulatory disease	100	per cent
Are overweight	70	per cent
Average age	36.8	years
Amount of animal fats in average weekly diet	492.8	Gm.

DISCUSSION

The assumptions that are drawn from this study must be tempered by at least two considerations: (1) the size of the group and (2) the variability of the measured qualities. Ideally, the cholesterol determinations should have been repeated at least once, and a closer look should have been taken

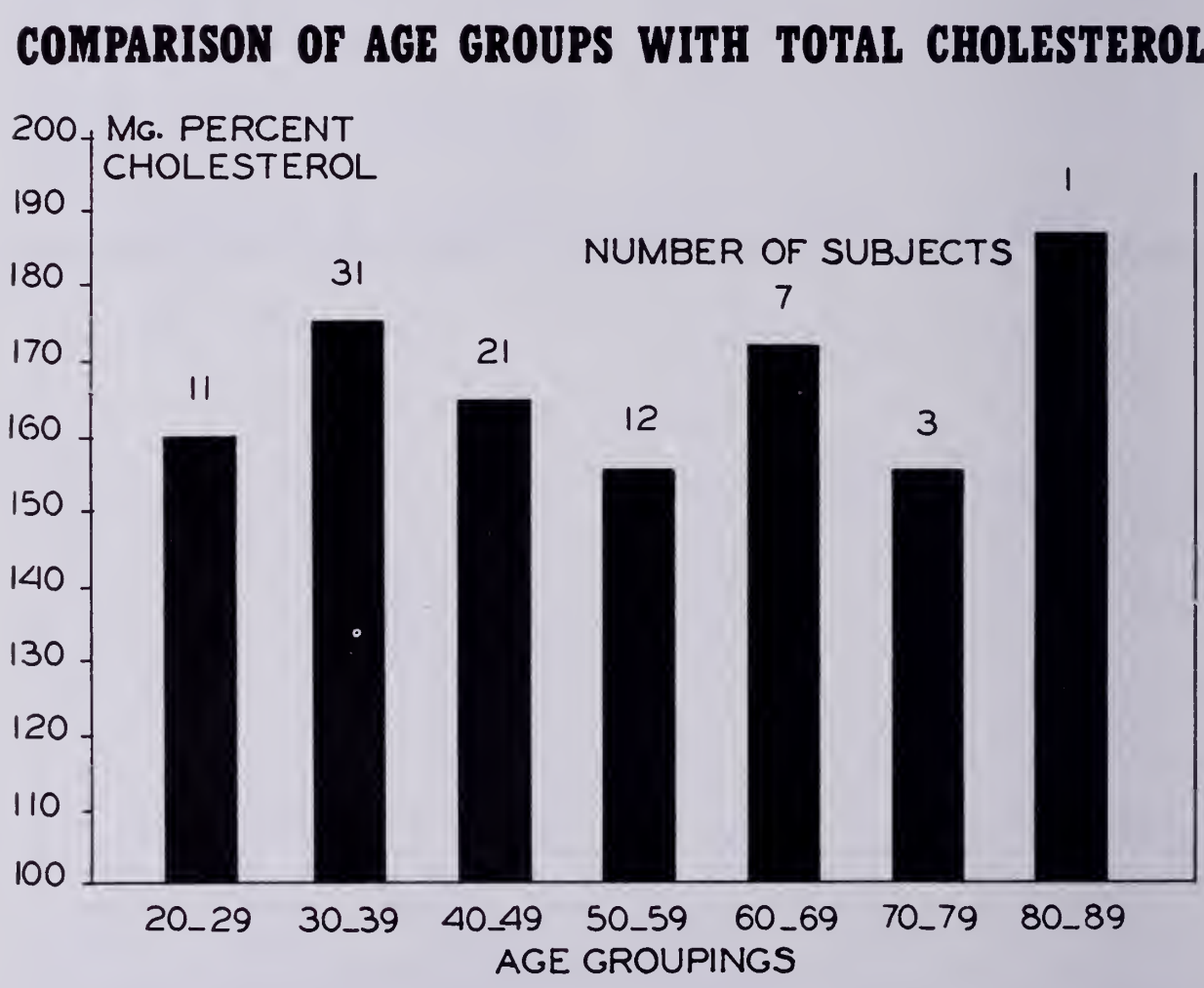


Figure 3

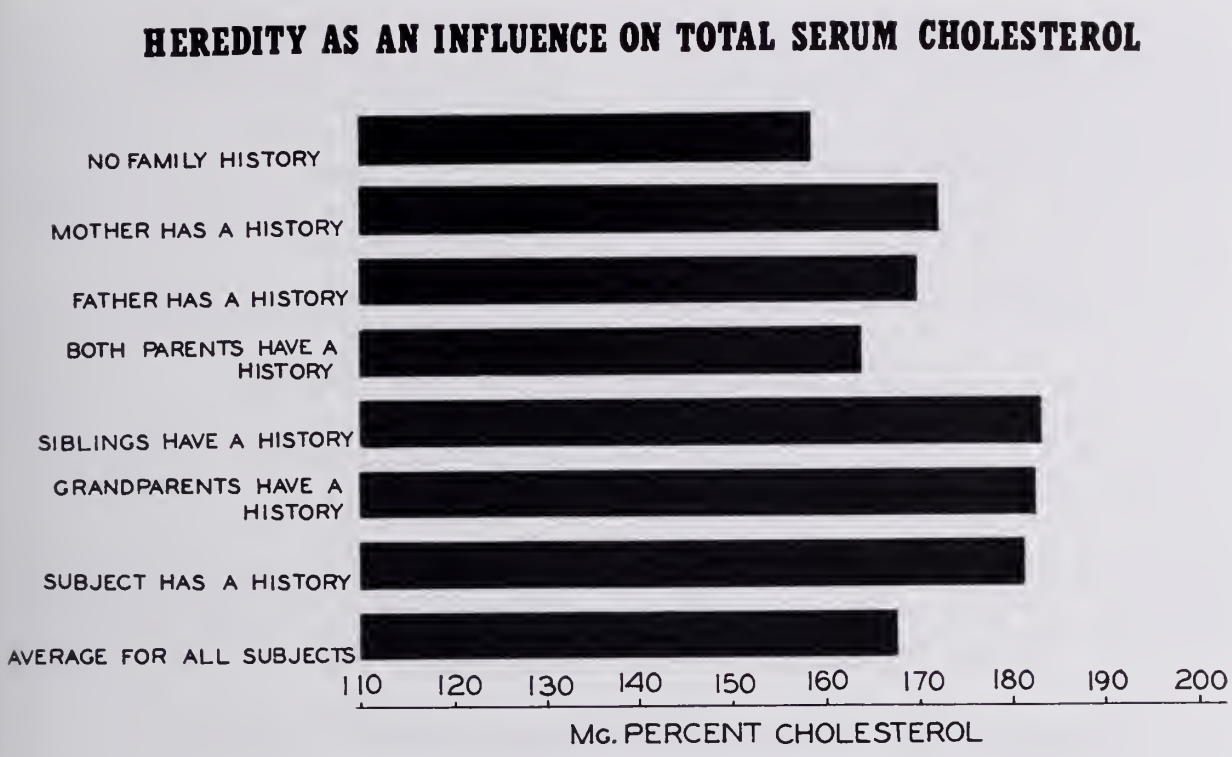


Figure 4

at cooking methods and serving amounts, so that the dietary fat intakes could be estimated more accurately. But despite these shortcomings, there seem to be several legitimate and significant comparisons that can be drawn from the data which were obtained.

As has been said, the study originally was to have included patients from the hospital population as a second study group. It was found, however, that these patients were as a whole quite sick, on abnormal diets, on anticoagulant therapy (a blood-lipid lowerer), or in some other undesirable experimental status, at least in so far as the study was concerned. For example, one patient on the first determination had a blood cholesterol level of 490 mg. per cent. Three days later it was 360 mg. per cent; four days later 240 mg. per cent; and 12 days after the first determination, 130 mg. per cent. These patients, all of whom had circulatory diseases as their major complaint, had a mean cholesterol value of 157 mg. per cent—10.5 mg. per cent below the physicians' mean value. Presumably, this would not have been true if these cardiac patients had been leading as nearly normal lives as possible, or at least had been at home and well along in convalescence. Their histories and the estimates of their dietary intake also were considered much less reliable than those of the medical group. For these reasons, the patients were omitted from further study after 51 of them had been tested.

An attempt to measure the importance of obesity as a factor showed that approximately 53 per cent of the doctors were judged overweight and had a mean total cholesterol of 172.9 mg. per cent, or 5.4 mg. per cent higher than the average for the whole group, and 12 mg. per cent higher than the normal-weight group (Figure 5). The incidence of positive family history, however, was no larger in the overweight group than in the normal-weight group. The intake of animal fat per week for the overweight group was even less than that of the normal-weight group (482.3 Gm. to 503 Gm.). These facts would seem to point to an individual metabolic error that was causing hypercholesterolemia, rather than to a quantitative difference in actual animal-fat intake.

When the animal-fat intake per week was balanced against the total blood cholesterol of each subject in the study, a nearly flat distribution curve was produced. This finding also points to an abnormal fat metabolism, rather than to a difference in total fat intake.

When age groups and total cholesterol values were compared, an early rise in the 30-39 year group was observed. This would be consistent, perhaps, with the pathologic changes imagined to take place during this normally asymptomatic period. The rises at older age periods may or may not be due to the sizes of the groups represented.

Some of the most interesting relationships to come out of the study are seen in the possible hereditary factors.

Those subjects having no history of cardiovascular disease had a total cholesterol value of 158.9 mg. per cent, on the average. In contrast, those

subjects who had parents with circulatory diseases had a mean cholesterol of 12 to 14 mg. per cent higher. There were 11 subjects who had personal histories of circulatory disease (ranging from arrhythmias to coronary occlusion), and their mean cholesterol value was elevated over that of the "no history" group (181.4 mg. per cent, or 22.5 mg. per cent higher). The high level of cholesterol associated with disease in brothers and sisters is particularly interesting, since these subjects are as genetically alike as possible (identical twins excepted). Their mean cholesterol was 188 mg. per cent, or nearly 30 mg. per cent higher than that of the group having no family or personal history. The physicians, unlike some of the patients, were able to give detailed, reliable histories of their personal and familial disease patterns.

Finally, a look at subjects with the top seven cholesterol values showed that 100 per cent of them had positive family histories, as against 61.7 per cent of the whole group. Also, 70 per cent of them were overweight, yet their fat intakes were actually less than the average animal-fat intake per week for the normal-weight group.

SUMMARY

1. A total of 86 physicians and 51 patients were studied to determine possible relationships between blood cholesterol levels and arteriosclerotic heart disease.

2. An attempt was made to determine possible relationships between blood cholesterol and heredity, obesity, diet, age and personal medical history.

3. There appeared to be no connection between actual quantitative intake of animal fats and an elevated blood cholesterol level.

4. When total blood cholesterol was plotted against ten-year age groups, an early rise in the total cholesterol values of the younger age groups was seen, perhaps indicating disease when no other signs were present.

5. The study pointed up the obvious importance of heredity as a factor, particularly when the sibling relationships were studied. The comparison of doctors with sibling histories gave the highest mean cholesterol for any familial comparison.

6. The study indicates that although it is dis-

CHOLESTEROL VALUES OF NORMAL WEIGHT VERSUS OVERWEIGHT SUBJECTS

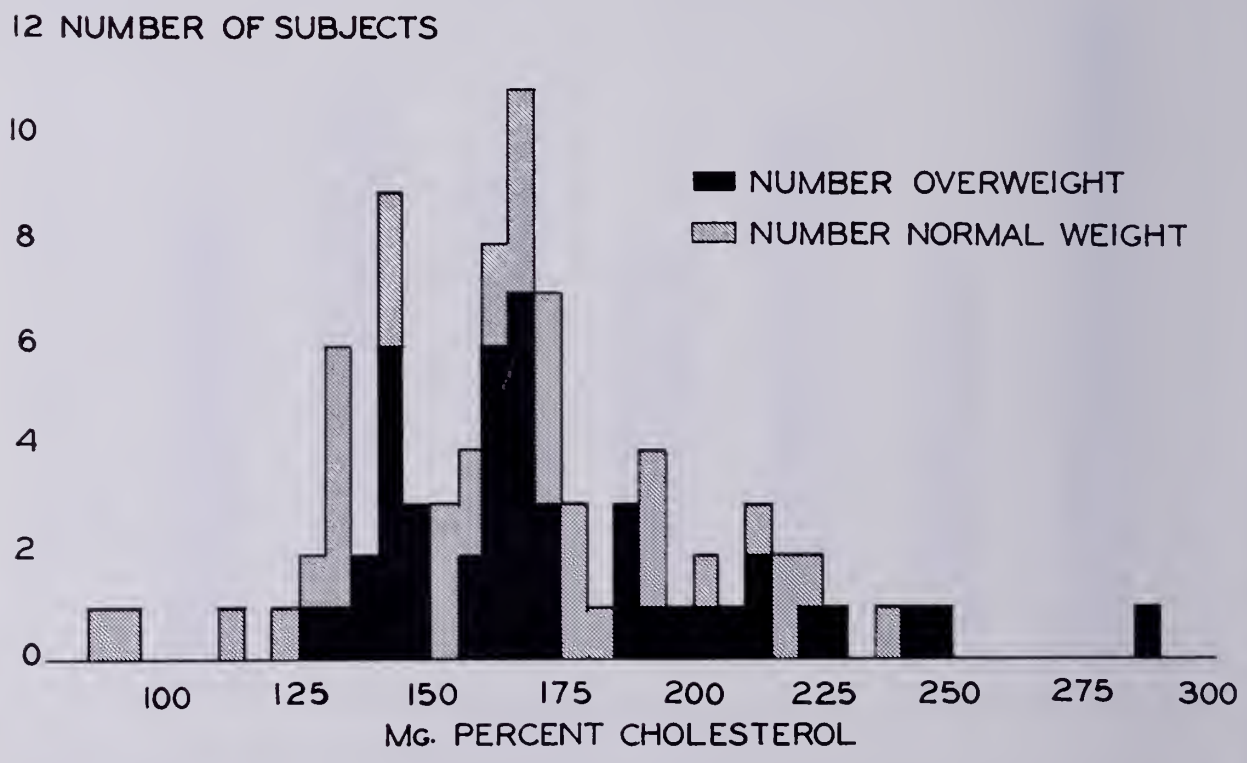


Figure 5

advantageous to be overweight, the condition may not be traceable to the expected causes. It does indicate that a metabolic defect (perhaps dictated by heredity) is involved in the problem of hypercholesterolemia and possible arteriosclerotic heart disease, rather than gross dietary intake of animal fats.

(We are indebted to the Iowa Heart Association for a grant to support this study. We also express our appreciation to Mr. Joseph Zaletel, clinical chemist at Mercy Hospital, Des Moines, for his help with the cholesterol determinations. Mr. Taft is currently a student at the University of Iowa College of Medicine, Iowa City, Iowa.)

Tuberculous Meningitis Occurring During Isoniazid Therapy

HENRY G. CRAMBLETT, M.D., GEORGE T. BRYAN, M.D., AND JOHN C. MacQUEEN, M.D.

IOWA CITY

THE USE OF ISONIAZID has resulted in a sharp decline in the fatality rate among patients with tuberculosis. The therapeutic efficacy of the drug has been especially prominent in patients with tuberculous meningitis. Debré,[1] in his study of results from various programs of therapy in children afflicted with the latter disease, has reported a recovery rate of 30 per cent among those treated with streptomycin alone. In those treated with streptomycin and para-aminosalicylic acid (PAS), the recovery rate was 60 per cent. It has recently been discovered that 80 per cent of patients treated with isoniazid in addition to streptomycin and PAS recover.

The case to be reviewed in this article is that of a patient who had a progression of her tuberculous infection while receiving isoniazid, and that unusual circumstance is our principal reason for presenting it. Very few therapeutic failures with isoniazid have been recorded in the literature.

These failures in therapy raise two specific questions: (1) What constitutes an adequate amount of isoniazid in children with tuberculosis? (2) Since the dosage of a chemotherapeutic agent is limited by its side effects, what points should be considered when one prescribes maximum dosage? These problems will also be discussed in the review of our case.

CASE REPORT

S. W., a 3½-year-old white girl, was first admitted to the University Hospitals of the State University of Iowa on December 18, 1956. The patient had been well until five weeks before admission, when she complained of pain in the left knee. Later in the day, she became febrile. Because the fever persisted, she was seen by a physician two days later, but he could find no abnormalities on physical examination. She was given penicillin and streptomycin on two occasions during the week, but without effect on the fever.

Four weeks prior to admission, the child began to cough, and roentgenographic examination of the chest revealed what was interpreted as virus pneumonia. She was hospitalized for four days, during which time she continued to be febrile. The temperature elevation, which was most prominent during the afternoons, persisted to the time of admission. Following the administration of aspirin, the temperature usually returned to normal. A repeat roentgenogram of the chest one week prior to admission revealed "interstitial pneumonia." Histoplasmin and tuberculin (patch) tests were performed, and were interpreted as negative. During her five weeks of illness, the patient was anorexic and lost approximately 10 pounds of weight.

The family history revealed no potential tuberculous contacts. Tuberculin skin tests had been performed on the two siblings and were negative. Chest roentgenograms of the parents were normal. The patient had had a brief contact with a maid approximately seven months prior to the onset of symptoms, and that individual was later discovered to have "open tuberculosis."

Physical examination on admission. On admission, the patient's temperature was 102°F., her heart rate was 120/minute, and her respiratory rate was 40/minute. She appeared both acutely and chronically ill. An auscultatory examination of the lungs failed to reveal any abnormalities. The liver was palpated 4 cm. below the right costal margin. The remainder of the physical examination was non-contributory.

Laboratory examination. The white blood cell count was 12,200/cu. mm., and the differential was normal. The hemoglobin content of the blood was 9.4 Gm. per cent. The erythrocyte sedimentation rate (Westergren method) was 9 mm./hr., initially, but later it became elevated. The urine con-

This paper won first prize in the 1958 Essay Contest of the Iowa Pediatrics Society. Dr. Cramblett is an instructor, Dr. Bryan is a resident, and Dr. MacQueen is acting head and an associate professor in the Department of Pediatrics at the S.U.I. College of Medicine.

tained 2+ albumin, but was otherwise normal. Examination of the cerebrospinal fluid revealed one lymphocyte per cu. mm., 18 mg. per cent protein and 56 mg. per cent sugar. Cultures for bacteria, fungi and Mycobacterium tuberculosis yielded no growth.

Roentgenographic examination of the chest revealed diffuse, mottled infiltrations of a miliary type throughout the lung fields, but most prominent in the perihilar regions. These findings were interpreted as being consistent with miliary tuberculosis. An intradermal skin test for tuberculosis with purified protein derivative (second strength) was positive. Gastric washings were obtained for acid-fast culture, and on three occasions they yielded Mycobacterium tuberculosis, both on media and in guinea pigs. Blood cultures, throat cultures, urine cultures and cultures of the spinal fluid for bacterial pathogens and acid-fast organisms were negative.

Hospital course and therapy. Three days after admission, multiple, small, yellow-white, fluffy lesions with ill-defined borders were visualized scattered throughout both fundi. It was the impression of the opthalmologist that they represented miliary lesions of tuberculosis. A presumptive diagnosis of acute, disseminated miliary tuberculosis was made, and therapy was begun with streptomycin (35 mg./kg./day) and isoniazid (8 mg./kg./day).

The hospital course of the patient during the next 12 weeks was uneventful. She had a gradual defervescence of symptoms, except during the ninth week of hospitalization, when she had varicella. There was no evidence of reactivation of her tuberculous infection at that time. The erythrocyte sedimentation rate (Westergren method), which had been markedly elevated (117 mm./hr.), gradually became normal. Roentgenographic examination of the chest showed a complete resolution of the miliary infiltrate. The miliary lesions in the ocular fundi gradually resolved. By the end of the twelfth week of therapy, the temperature had become normal, and one week later, the patient was discharged from the hospital.

The following is a review of the patient's therapy during her first hospitalization. Streptomycin was given her in the amount of 35 mg./kg. daily during the first four weeks of therapy. During the fifth week of treatment, 28 mg./kg. of streptomycin were given her each day. At the end of that time, the streptomycin dosage was changed to 42 mg./kg., twice weekly, and that dosage was continued until her discharge from the hospital during the thirteenth week of her stay. The child was instructed to take isoniazid (9 mg./kg./day), and to remain on restricted activity.

Course at home. During the next 3½ months, the patient did well and remained asymptomatic. Her appetite was good, and she was as active as her parents permitted. Her temperature remained within the normal range, except on two occasions when she had upper respiratory infections. However, the child was readmitted to the University Hospitals on July 5, 1957, with a history of headaches, vomiting and pains in the legs and arms of three weeks' duration.

It was documented that the child had been receiving isoniazid (9 mg./kg./day), as recommended at discharge, until one week before the second admission, when her physician reduced the dosage to approximately 5½ mg./kg./day.* It was also noted that the child had lost approximately 3 pounds.

Second hospital admission. On readmission, the child was febrile, and appeared acutely and chronically ill. There was moderate nuchal rigidity. Examination of the fundi revealed bilateral papilledema, with hemorrhage about the left disc. Otherwise, the physical examination was non-contributory.

Examination of the cerebrospinal fluid revealed 450 white blood cells per cu. mm., 83 per cent of which were lymphocytes. The cerebrospinal fluid protein was 380 mg. per cent, and the glucose was <15 mg. per cent. Cultures of the spinal fluid on this and subsequent occasions were negative for bacteria, fungi and acid-fast organisms.

Roentgenographic examination of the chest was normal. Roentgenographic examination of the skull revealed that the sutures were separated, a phenomenon which was interpreted as indicating increased intracranial pressure.

Hospital course and therapy. On the basis of the previous history, the increased intracranial pressure and the characteristic cerebrospinal-fluid findings, the diagnosis of tuberculous meningitis was made. It was agreed that the patient should be given maximal anti-tuberculous treatment. Thus, streptomycin (35 mg./kg./day, intramuscularly), was instituted, along with isoniazid and para-aminosalicylic acid.

The isoniazid was given initially in a dosage of 10 mg./kg./day, but was increased to 14 mg./kg./day. Para-aminosalicylic acid was given in a dosage of 2 Gm./day. The isoniazid, during the third week of hospitalization, was increased to 22 mg./kg./day. The child seemed to respond favorably, but shortly after the isoniazid was increased, she exhibited psychotic behavior. It was difficult to interpret whether this response was due to pyridoxine deficiency, or to her disease. Pyridoxine was given in 50 mg. amounts per day, and the patient had no subsequent episodes.

The child improved over the next few weeks. The cerebrospinal fluid was examined every two weeks, and by the fourth month of therapy, it had become normal. The erythrocyte sedimentation rate, which had been markedly elevated at the time of the second hospital admission, approached normal levels. However, an elevation of the eryth-

* The local druggist verified that he had filled a prescription for isoniazid for the patient at the appropriate interval. The child's local physician had decreased the isoniazid after the symptoms of recurrent tuberculous infection had been present for two weeks. He felt that the medication was causing her symptoms.

TABLE 1

DOSAGE OF ISONIAZID RECOMMENDED BY VARIOUS AUTHORS FOR TREATMENT OF CHILDHOOD TUBERCULOSIS

Author	Average Daily Dosage (mg./kg.)	Duration of Therapy (months)	Comments
Debré[1]	20		Uses maximum of 600 mg./day
Ratner et al.[2]	10		Occasionally as much as 20 mg./kg.
Auricchio[3]	10 to 20		Uses glutamine to prevent toxicity of isoniazid
Yeager[4]	4 to 5	12 to 18	
Boyd[5]	10	12 to 18	Decreases drug to 5 mg./kg. at end of 3 mos.; decreases to 2.5 mg./kg. in 6-9 mos.
Hsu[6]	7 to 17	12	Smaller children and infants given larger doses
Nelson[7]	3.3 to 11	2 to 6	Higher doses used in more severe infections
Lincoln[8]	10	4 to 12	Decreased in 4 to 6 wks. to 7 mg./kg.
Bulkeley[9]	8.8		Give first 2 doses 17.6 mg./kg.
Kendig et al.[10]	6 to 8		
Meyer et al.[11]	8	6 to 9	Decreased to 4 mg./kg. at end of 6 mos.
Sweethnam[12]	10	12	
Robinson[13]	8		
Choremis[14]	5 to 15		
Saim et al.[15]	20		

rocyte sedimentation rate occurred on two occasions, associated with upper-respiratory infections. On neither occasion was there an exacerbation of the tuberculous infection, as gauged by examination of the cerebrospinal fluid or roentgenographic examination of the chest.

DISCUSSION OF THE CASE

At the time of the patient's first admission, cultures of her gastric washings yielded Mycobacterium tuberculosis. The appearance of tubercules in the fundi and a subsequent roentgenographic examination of the chest demonstrated that the disease was disseminated. On the second admission, despite the fact that cultures failed to yield Mycobacterium tuberculosis, the diagnosis of tuberculous meningitis was established on the basis of the characteristic findings in the cerebrospinal fluid, our failure to find any other etiology, the increased intracranial pressure and the previous history.

Isoniazid, in the dosage employed during the patient's first admission (9 mg./kg./day), was effective in clearing the pulmonary infiltrate. However, in this dosage, isoniazid was not effective in preventing the complication of tuberculous meningitis.

In this case, after seven months of therapy with isoniazid in a dosage of 9 mg./kg./day, signs and symptoms of meningitis developed. Reversal of the tuberculous process occurred when isoniazid, in an increased dosage (from 14 mg./kg./day to 22 mg./kg./day), was combined with streptomycin and para-aminosalicylic acid.

DISCUSSION OF THE WHOLE PROBLEM

The efficacy of isoniazid in the treatment of tuberculosis is unquestioned. There is, however, much variation in the amounts of isoniazid recommended in the treatment of childhood tuberculosis (Table 1).

In establishing minimal effective doses, we can derive several rules worthy of consideration from the available medical literature and from the case that has just been reported. First of all, the recommended minimum dosage should be great enough to prevent progression of the disease. This principle is especially important if the drug is to be used "prophylactically." Table 2 summarizes those cases reported thus far which might be regarded as therapeutic failures. However, a closer investigation of the majority of them reveals that isoniazid was administered either for too brief a period of time or in inadequate amounts or with insufficient regu-

TABLE 2

APPARENT THERAPEUTIC FAILURES IN CHILDREN USING ISONIAZID

Case	Author	Complication of Tuberculous Infection	Dosage of Isoniazid	Comment
1	Ratner[2]	Meningitis	Approximately 5-7 mg. per kg. (75 mg./day in 2-yr.-old child)	Received streptomycin and isoniazid for 80 days; therapy was discontinued and 5 mos. later, meningitis developed.
2	Ratner[2]	Recurrent Meningitis	Not given	Details lacking; child developed recurrent fatal meningitis while on therapy.
3	Lincoln and Lythcott[16]	Meningitis	Was supposed to be receiving 3.5 to 4 mg./kg.	Robins[17] reported that further interviews with family revealed that the child was not receiving the drug regularly.
4	Sifontes[18]	Miliary spread from pulmonary focus	Started on 10 mg./kg. and increased to 30 mg./kg.	Infant died and necropsy revealed typical findings of miliary tuberculosis.
5	Present Report	Meningitis	9 mg./kg.	
6-10	Ferebee et al[19]	Meningitis	4-6 mg./kg.	Did not take isoniazid regularly.
		Skeletal Tuberculosis	4-6 mg./kg.	Did not take isoniazid regularly.
		Pleural Effusion	4-6 mg./kg.	Did not take isoniazid regularly.
		Miliary Disease	4-6 mg./kg.	Took isoniazid for only 2 wks. after entering study.
		Miliary Disease	4-6 mg./kg.	May have occurred prior to therapy.

larity. One of these cases is lacking in details. Only one case in addition to the one which has been reviewed in this paper has been reported as developing extrapulmonary complications of tuberculosis while on regular isoniazid therapy.

If a larger amount of isoniazid is recommended for routine use, it should be shown to be more effective than is a lesser amount of the drug. A recent report [15] compares the results in two groups of patients with tuberculous meningitis treated with 20 mg./kg./day of isoniazid and 5-10 mg./kg./day of isoniazid. There were no deaths among patients receiving the large dosage, but there was a death rate of 7.1 per cent in the group receiving the small one.

The dosage of isoniazid should not be so great as to cause toxicity in the patient. It is quite uncommon for children to manifest signs and symptoms of toxicity to isoniazid when the drug is given in currently-recommended amounts,[6, 14] but the phenomenon has been reported.[20] (See Table 3.) In

TABLE 3
TOXICITY OF ISONIAZID IN CHILDREN

Author	*Presence or Absence of Toxicity*	*Comments*
Auricchio[3]		Gives glutamine to prevent toxic effects
Hsu[6]	None observed thus far	Patients are given multivitamin preparations which contain daily dose of 1-2 mg. of pyridoxine.
Sifontes[14]	None observed	
Katz and Carver[21]	Convulsions, apnea, and hypertonia	19-month-old child. Accidentally ingested at least 900 mg.; treated successfully by exchange transfusions.
Livingston et al.[23]	Convulsions	26-month-old child. Accidentally ingested 1,500 mg.; approximately one half was lost as vomitus.

adults, the most common manifestation of toxicity is peripheral neuropathy.[21] Other toxic reactions include toxic psychosis, convulsions, nervousness and hyperreflexia. Less commonly, there are allergic reactions, drug fever, toxic hepatitis, agranulocytosis, hemolytic anemia and methemoglobinemia.[21] Recently, isoniazid has been indicated as a cause of optic neuritis and atrophy in adults.[22] In children, seizures may occur as a result of accidental ingestion of large amounts of isoniazid.[21, 23]

Toxicity to isoniazid apparently results from pyridoxine deficiency.[24] It has been demonstrated that patients receiving isoniazid excrete large amounts of pyridoxine. In addition, when patients who are receiving isoniazid are given tryptophane loading tests, abnormal amounts of xanthurenic acid are excreted. This is additional evidence of vitamin-B_6 deficiency in such patients. Further, in a controlled series, it was found that the addition of pyridoxine to a therapeutic regimen with isoniazid prevents peripheral neuritis. There is no evidence that pyridoxine interferes with the antituberculous effect of isoniazid when the two drugs are given concurrently.

Hsu[6] advocates giving isoniazid on a square-meter, rather than a kilogram, basis. In making that suggestion, she has reference to the recommended adult dose of 5 mg./kg. Other factors to be considered as one decides the amount of isoniazid to be given include age, type and severity of the tuberculous infection, and whether or not some other therapy is to be given with the isoniazid.

From a consideration of the available literature, together with the above-mentioned factors, it would seem reasonable to recommend that every child with disseminated disease due to Mycobacterium tuberculosis should be given 15 to 30 mg./kg./day of isoniazid, with the maximal daily dose being 500 to 600 mg. The smaller children should receive the larger doses.

Most authorities in this field recommend that therapy with isoniazid be continued for at least 12 months (Table 1). In addition, experience has proved that it is beneficial to give 50 mg. of pyridoxine per day to prevent toxicity.

SUMMARY

A 3½-year-old child who developed tuberculous meningitis while receiving isoniazid (9 mg./kg./day) has been reported upon. The literature regarding the amount of isoniazid recommended for children and the apparent therapeutic failures with the drug has been reviewed.

It is recommended that all children with active tuberculosis receive 15 to 30 mg./kg./day of isoniazid, with the maximal dose being 500 to 600 mg./day.

REFERENCES

1. Debré, R., and Brissaud, H. E.: Present methods and results of treatment of tuberculous meningitis. Am. Rev. Tuberc., **74**:221-224, (Aug., pt. ii) 1956.
2. Ratner, B., Klimkiewicz, G. R., Ellis, W. C., Malone, H. J., and Dolgin, J.: Relative merits of isoniazid and other therapeutic agents in treatment of tuberculous meningitis in children. Pediatrics, **20**:676-687, (Oct.) 1957.
3. Auricchio, L.: Tuberculous meningitis in infants; clinical forms and therapy. Arch. Tisiol., Nap., **11**:897-905, (Dec.) 1956.
4. Yeager, R. L.: (Discussion of article by Sifontes hereinafter cited.) Pediatrics, **20**:728, (Oct.) 1957.
5. Boyd, G.: Tuberculous meningitis in children. AMA Am. J. Dis. Child., **91**:477-484, (May) 1956.
6. Hsu, K. H.: Diagnosis and antimicrobial therapy of primary tuberculosis in children. J.A.M.A., **164**:1204-1209, (July 13) 1957.
7. Nelson, Waldo E., ed.: Textbook of Pediatrics, With Collaboration of Seventy Contributors, Sixth Edition. Philadelphia, W. B. Saunders Company, 1954.
8. Lincoln, E.: Note following abstract of article by Bulkeley hereinafter cited. In: The 1954-1955 Year Book of Pediatrics. Chicago, The Year Book Publishers, Inc., 1955.
9. Bulkeley, W. C. M.: Tuberculous meningitis treated with ACTH and isoniazid; comparison with intrathecal streptomycin. Brit. M.J., **2**:1127-1129. (Nov. 21) 1953.
10. Kendig, E. L., Jr., Trevathan, G. E., and Ownby, R., Jr.: Isoniazid in treatment of tuberculosis in childhood. AMA Am. J. Dis. Child., **88**:148-157, (Aug.) 1954.
11. Meyer, M., Middlebrook, G., and Robinson, A.: Treatment of primary tuberculosis in infancy. J. Pediat., **46**:398-402, (Apr.) 1955.
12. Sweethnam, W. P., and Murphy, E. F.: Isoniazid in treatment of miliary tuberculosis in children. Arch. Dis. Childhood, **29**:338-341, (Aug.) 1954.
13. Robinson, A., Meyer, M., and Middlebrook, G.: Tuberculin hypersensitivity in tuberculous infants treated with isoniazid. New England J. Med., **252**:983-985, (June 9) 1955.
14. Choremis, C.: (Discussion of papers by Robert DeBray, C. Choremis and Cesare Cocchi) Am. Rev. Tuberc., **74**:217, (Aug. pt. ii) 1956.
15. Saim, A., Radovici, P., Fierbinteanu, M., *et al.*: Contribution to treatment and prognosis of tuberculous meningitis in children. Presse med., **65**:1403-1404, (Aug. 24) 1957.

16. Lincoln, E. M., and Lythcott, G. I.: Tuberculous meningitis developing in course of isoniazid therapy (case report). Am. Rev. Tuberc., **73**:940-943, (June) 1956.
17. Robins, A. B.: Tuberculous meningitis during isoniazid therapy (Correspondence). Am. Rev. Tuberc., **74**:480, (Sept.) 1956.
18. Sifontes, J. E.: Problem of indications for treatment of asymptomatic primary tuberculosis. Pediatrics, **20**:723-726, (Oct.) 1957.
19. Ferebee, S., Mount, F. W., and Anastasiades, A.: Prophylactic effects of isoniazid on primary tuberculosis in children. Am. Rev. Tuberc., **76**:942-963, (Dec.) 1957.
20. Weingartner, L.: Toxic effects of isoniazid during childhood. Kinderarzth. Praxis, **25**:249-254, (June) 1957.
21. Katz, B. E., and Carver, M. W.: Acute poisoning with isoniazid treated by exchange transfusion. Pediatrics, **18**:72-76, (July) 1956.
22. Kass, I., Mandel, W., Cohen, H., and Dressler, S. H.: Isoniazid as cause of optic neuritis and atrophy. J.A.M.A., **164**:1740-1743, (Aug. 17) 1957.
23. Livingston, S., Petersen, D., and Peck., J. L.: Convulsive reaction in two-year-old child following accidental ingestion of overdosage of isoniazid. Pediatrics, **18**:77-79, (July) 1956.
24. Biehl, J. P., and Vilter, R. W.: Effect on isoniazid of vitamin-B_6 metabolism; its possible significance in producing isoniazid neuritis. Proc. Soc. Exper. Biol. & Med., **85**:389-392, (Mar.) 1954.

A Practical Approach for

Evaluating Disorders of Blood Coagulation

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DES MOINES

SINCE 1905, WHEN Morawitz first presented his classical theory on the mechanism of blood coagulation, great strides have been made toward furthering our understanding of this complicated process. At first, prothrombin, thromboplastin, calcium and fibrinogen were considered the only ingredients necessary for clot formation, but now it is known that other factors are involved.

In the past few years, the discovery of the various plasma factors and accelerators have made the coagulation mechanism so seemingly complicated that its applications is often difficult to interpret. One of the chief reasons for the difficulty lies in the terminology that is used. The number of synonymous terms employed by the various investigators is tremendous, and as a result, clinicians are greatly confused as they read the literature.

Because many coagulation disorders have a congenital basis, the generalist or the pediatrician is often among the first to be confronted with the problem. The diagnosis of a coagulation defect is relatively simple when severe hemorrhagic episodes have occurred early, but the real problem arises when the deficiency is mild and does not manifest itself until after a surgical procedure.

This paper, then, is not intended to add anything to the concept of coagulation, but instead is intended to help clarify a most confusing picture and to simplify, if possible, the complicated clotting process, so that the available laboratory studies can be used in a more rational manner.

HEMOSTASIS

To understand the various types of bleeding disorders, one must be familiar with the fundamental concepts of hemostasis.

The three factors that seem to be involved in hemostasis are (1) extravascular, (2) vascular and (3) relating to the blood coagulation mechanism itself.

When a vessel is injured, the hydrostatic pressure within it falls, and that in the surrounding tissue rises. This extravascular sequence, then, tends to reduce the flow of blood through the injured vessel, and thus further blood loss is minimized.

Hemorrhage occurs at the level of the metarteriole. As this vessel is severed, a fleeting, localized vasoconstriction takes place. Shortly afterward, platelets agglutinate at the site of the injury. This physical phenomenon is followed by a more prolonged and more systemic constriction of all metarteriolar vessels—one which is attributed to a release of serotonin (5-hydroxytryptamine) from the disintegrating platelets.

The coagulation of blood is generally believed to occur in a series of reactions, each of which is dependent upon the previous steps. The initiation of the clotting is apparently the result of interactions between platelet substances and certain plasma proteins. A deficiency of any of these proteins leads to a bleeding diathesis of the hemophilic type. It is this portion of our hemostatic mechanism that will be stressed in this summary.

SCHEME OF BLOOD COAGULATION

The coagulation cycle is best divided into three phases. In the first phase, antihemophilic globulin (AHG), plasma thromboplastin component (PTC) and plasma thromboplastin antecedent (PTA) react with the platelets to form thromboplastin. Although recent studies indicate that there may be more plasma proteins involved, at present these three are the ones of which we are most sure. In the second phase, thromboplastin reacts with calcium and prothrombin in the presence of stable factor and labile factor to produce thrombin. Labile factor has also been called Factor V, Ac-globulin and pro-accelerin; and stable factor has also been called Factor VII, serum prothrombin conversion

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accelerator, pro-convertin and co-thromboplastin. In the third phase of coagulation, thrombin reacts with fibrinogen to yield fibrin.

Schematically, the coagulation mechanism may be shown as follows:

Phase I: AHG + PTC + PTA + Platelets ⟶ Thromboplastin

Phase II: Thromboplastin + Ca + Labile Factor + Stable Factor + Prothrombin ⟶ Thrombin

Phase III: Thrombin + Fibrinogen ⟶ Fibrin

As this sequence of reactions takes place, various accelerators are activated which speed up the whole process. It is then easy to see that a deficiency of any of the factors in any of the three phases may cause the formation of an inadequate clot or of no clot at all.

CLASSIFICATION OF HEMORRHAGIC DISEASES

A convenient means of classifying hemorrhagic disorders due to a deficiency of any of the necessary factors is the following:

A. Deficiency of factors required for thromboplastin formation
   1. Antihemophilic globulin (AHG) deficiency, or Hemophilia A
   2. Plasma thromboplastin component (PTC) deficiency, or Hemophilia B or Christmas disease
   3. Plasma thromboplastin antecedent (PTA) deficiency, or Hemophilia C
   4. Platelet deficiency

B. Deficiency of factors of the prothrombin complex
   1. Prothrombin deficiency
   2. Labile factor deficiency, Owren's disease
   3. Stable factor deficiency

C. Deficiency of fibrinogen
   1. Afibrinogenemia
   2. Hypofibrinogenemia
   3. Excessive fibrinolysis

LABORATORY STUDIES AVAILABLE

In recent years it has been established that all grades of deficiency of the various factors are possible, and that the clinical manifestations are proportional to the severity of the deficiency. Thus, it has become necessary to establish laboratory tests capable of detecting the mild to moderate deficiencies, and of determining, if possible, the specific factor that is lacking.

After a careful history-taking, what laboratory studies are available to help in the diagnosis, and what are some of the limitations and interpretations of those studies?

The procedures most commonly used at present are:

1. CBC-Differential-Platelet Count
2. Rumpel-Leede Tourniquet Test
3. Bleeding Time
4. Lee-White Coagulation Time
5. Clot Retraction Time
6. Plasma Clotting Time
7. Quick's Prothrombin Time
8. Prothrombin Consumption Time
9. Thromboplastin Generation Time
10. Tests for specific thromboplastic factors—AHG, PTC, PTA
11. Labile and Stable Factor Determinations
12. Fibrinogen Determination
13. Determination of the presence of fibrinolysins.

CBC and Differential. These basic studies give much information that is needed in ruling out diseases such as leukemia, hypoplastic anemias, or infections that might manifest themselves as bleeding tendencies.

Platelet Count. This procedure, of course, tells the clinician whether or not a thrombocytopenia is present, but it does not differentiate between a primary cause and a secondary one, such as is seen with leukemia. The bleeding time is usually prolonged in thrombocytopenia because of the formation of poor platelet plugs. The coagulation time is normal, but there is poor clot retraction.

Rumpel-Leede Tourniquet Test. Primarily, this simple study is used in measuring capillary fragility. It may be positive in diseases such as scurvy, allergic purpura or thrombocytopenia. In thrombasthenia, the tourniquet test may also be positive. Here, along with increased vessel fragility, the platelets are deficient qualitatively, despite their being present in adequate numbers.

Bleeding Time. This is the time required for effective hemostasis to occur following the infliction of a standardized wound of the capillary bed. The bleeding time depends primarily on extravascular and vascular factors, and to a lesser extent on the factors of clot formation. It is a very rough test at best, and may be prolonged in flabby patients or in aged individuals who have poor muscle tone. Frank alterations in blood coagulation may have little effect on the bleeding time, as is best illustrated by the fact that the bleeding time may be "normal" in hemophilia or in afibrinogenemia. The explanation is that when a vessel is injured, it undergoes an initial vascular constriction. Oozing may occur when the constriction ceases, but by that time the test may already have been terminated.

Coagulation Time. Theoretically, the clotting time should be the ideal overall measurement of the clotting activity of the blood, but it is not. In thrombocytopenia, mild hemophilia and stable-factor deficiency, the clotting time is normal, though defective clotting can be established by other methods and is verified by the clinical findings of a bleeding state. Although a prolonged coagulation time is highly significant, a normal value is never reliable evidence that the clotting mechanism is adequate for effective hemostasis. It is im-

portant to realize that as little as 1 per cent antihemophilic globulin is sufficient to produce a normal whole blood clotting time. In addition, most errors in technic tend to shorten the reported coagulation time and to make the results seriously misleading.

Clot Retraction. In general, the correlation between poor clot retraction and thrombocytopenia is so high that an observed decrease in clot retraction may be a more reliable index of thrombocytopenia than is the platelet count itself. The clot is usually observed after one hour for consistency and amount of retraction.

There are several important limitations and interpretations that must be applied. First, low fibrinogen levels or anemia may cause the formation of a small clot, and thus one may get the mistaken impression that good clot retraction is present. Second, polycythemia appears to give poor clot retraction, since the clot is large and the amount of serum is small. Third, in thrombasthenia, there are a normal number of platelets, but the retraction is poor as a result of the inadequate qualities of the platelets themselves. Lastly, the presence of fibrinolysins may cause misinterpretations by lysing the clot almost as rapidly as it is formed.

Plasma Clotting Time. Although the clotting time of whole blood is the generally accepted measurement of the entire clotting process, it is not easy to define the end point, and as I have already said, the results are not absolutely reliable. A comparable test with plasma has the advantages of a sharper end point, and since the plasma has been mixed with an anticoagulant, one can determine the clotting time at his convenience and can easily repeat the measurement if he wishes a recheck.

Quick's One-Stage Prothrombin Time. As has been stressed previously, the initial phase of blood coagulation seems to be the evolution of an active plasma thromboplastin from the interaction of platelet factors and certain plasma proteins. The addition to plasma of a tissue thromboplastin performs the same function, and if the tissue extract is sufficiently potent, the normal first step of clotting can be obscured completely. The test measures the entire clotting process except for the platelet-plasma protein factor reaction. Consequently, the result is normal in AHG, PTC or PTA deficiencies, and is prolonged in hypoprothrombinemia, afibrinogenemia, and labile factor and stable factor deficiencies.

Abnormal results with Quick's test indicate (1) incomplete reaction between thromboplastin and the stable or labile factors, (2) imperfect conversion of prothrombin to thrombin or (3) inadequate fibrin formation. A deficiency of fibrinogen may be suspected in the absence of a clot in blood or plasma with any test. An isolated lack of prothrombin, which is difficult to measure, is among the rarest of clotting abnormalities, according to the recent literature. In most clinical conditions involving hypoprothrombinemia, the stable factor is also lacking.

For practical purposes, if the plasma clotting time is prolonged but Quick's prothrombin time is normal, the defect can lie only in the generation of plasma thromboplastin, and reflects a deficiency of AHG, PTC or PTA. On the other hand, if the plasma clotting time is prolonged and Quick's test is also prolonged, the lack is almost always of the stable factor and of prothrombin such as is seen in patients with severe liver injury or in those who are under treatment with the coumarin types of anticoagulants. Rarely does one encounter a lack of only one of these substances or of fibrinogen or of labile factor, although congenital deficiencies of each of them have been reported.

Prothrombin Consumption Test. This is a sensitive test that measures the residual prothrombin in serum after clotting has occurred. Normally more than 80 per cent of the available prothrombin in the test tube is consumed during clotting. In abnormalities of the first phase of coagulation, inadequate amounts of thromboplastin are formed to convert the prothrombin to thrombin, and therefore abnormal amounts of residual prothrombin are found in the serum. This test, then, detects any first-phase deficiency, primarily, and is not specific for the individual factors. In AHG, PTC or PTA deficiencies, impairment of the prothrombin consumption is found. In milder degrees of deficiency, however, even this test may be normal, since only three to five per cent of AHG is sufficient to yield a normal prothrombin consumption time.

It is evident, therefore, that the degree of prothrombin consumption depends upon the presence of adequate amounts of plasma protein factors, platelet factors, and stable and labile factors.

Thromboplastin Generation Test. This is one of the most sensitive tests generally available today, and it is being used in several laboratories and hospitals in our state.

In this test, barium sulfate-adsorbed plasma* (which contains AHG and PTA), serum (which contains PTC and PTA), platelets and calcium are incubated together. These are all of the factors necessary for thromboplastin formation. At regular intervals, fixed amounts of the mixture are added to normal plasma, and the induced speed of clotting is thus a measure of the thromboplastin formed. With this test, levels of AHG below 20 per cent of normal may be detected. This is quite significant, however, since abnormal bleeding does not usually occur at higher levels.

Thromboplastic Factors. Differentiation as to the specific plasma protein factor deficiency may be done quite easily by testing for the corrective effects of fresh normal plasma, aged normal plasma, normal plasma adsorbed with barium sulfate and normal serum on the patient's plasma clotting time. To illustrate:

* The plasma has been super-saturated with $BaSO_4$ and only the supernatant portion has been retained.

TABLE 1

EFFECTS OF PLASMA OR SERA ADDED TO THE PATIENT'S BLOOD

	Fresh Normal Plasma	*Aged Normal Plasma*	*Adsorbed Normal Plasma*	*Normal Sera*
AHG Deficiency	+	0	+	0
PTC Deficiency	+	+	0	+
PTA Deficiency	+	(+)	(+)	(+)

+ = correction of patient's plasma clotting time.
0 = no correction of patient's plasma clotting time.
(+) = partial correction of patient's plasma clotting time.

1. The addition of normal plasma to the patient's plasma will correct a prolonged plasma coagulation time due to a deficiency of any of the three factors.

2. Aged plasma will correct PTC and PTA deficiencies, but not AHG deficits.

3. Adsorbed plasma will correct AHG and PTA deficiencies, but not PTC deficits.

4. Normal serum will correct PTC and PTA deficiencies, but not AHG deficits.

5. Curiously, all of these plasmas will correct PTA deficiency to some extent.

Stable and Labile Factor Deficiency Determinations. The abnormal clotting time by Quick's test in the presence of a deficiency of the labile factor can be corrected through the adding of normal plasma or adsorbed plasma, but not by the addition of aged plasma or serum. A deficiency of the stable factor is corrected through the addition of serum or aged plasma, as well as normal plasma. A prothrombin deficiency can be corrected only through the addition of either normal or aged plasma.

TABLE 2

EFFECTS OF PLASMA OR SERA ON PATIENT'S PROTHROMBIN TIME

	Normal Plasma	*Aged Normal Plasma*	*Adsorbed Normal Plasma*	*Normal Sera*
Labile Factor Deficiency	+	0	+	0
Stable Factor Deficiency	+	+	0	+
Prothrombin Deficiency	+	+	0	0

+ = correction of patient's prothrombin time.
0 = no correction of patient's prothrombin time.

This procedure, then, helps determine the specific factor that is lacking in any second-phase coagulation defect.

Fibrinogen Determinations. Several technics are available at present for determining blood fibrinogen levels. The one employed at our hospital utilizes the Parfentjev reagent, which is essentially a buffered ammonium sulfate. When it is added to the blood, it "salts out" the fibrinogen. The fibrinogen is then re-dissolved in saline, and the total protein of this mixture, which is then determined, is really a measure of the fibrinogen present. Thus, this method gives a fairly accurate assay of the third phase of coagulation.

Fibrinolysins. One simple qualitative way to test for the presence of any fibrinolysin is to incubate the clotted plasma in a water bath at 37°C. and observe whether or not the clot is lysed and disappears.

COMMENTS

In a hemorrhagic disorder, it is imperative that the exact deficiency be determined before emergency treatment is instituted. A patient with an AHG or labile factor deficiency needs fresh blood or fresh frozen plasma to correct the deficit and bring about physiologic hemostasis, whereas a patient with a PTC, PTA or stable-factor deficiency can be corrected with "old" blood as well as with fresh blood. Patients with thrombocytopenia are usually treated with platelet transfusions, cortisone or, on occasion, splenectomy, depending upon the nature and the cause of the low platelet count. Commercial fibrinogen or whole blood may be given to bleeding patients who have low fibrinogen levels.

If one is in doubt as to the specific diagnosis in a "bleeder," it is always safest to give fresh whole blood in the event of a hemorrhagic episode. An appropriate prophylactic transfusion should be given prior to any elective medical or dental surgical procedure, with the idea of preventing a bleeding episode by supplying the factor or factors that the patient lacks.

SUMMARY

1. The basic principles involved in hemostasis have been briefly discussed, along with a simplified practical approach to the fundamental blood coagulation scheme.

2. A classification for the various coagulation disorders has been presented, together with the laboratory studies that are available at the present time as aids in the diagnosis of the specific deficiency.

3. In any question of a coagulation disorder, the three best screening tests are: Plasma Clotting Time, Quick's One-Stage Prothrombin Time, and the Prothrombin Consumption Time.

4. Some comments on the emergency and prophylactic management of patients with coagulation defects have been offered.

The writer is indebted to Dr. John W. Green, Jr., for his help in the preparation of this paper.

REFERENCES

1. Biggs, R.: "Blood Coagulation." In: Fulton, John F., ed.: A Textbook of Physiology, Seventeenth Edition. Philadelphia, W. B. Saunders Company, 1955.
2. Owen, C. A., Jr., Mann, F. D., Hurn, M. M., and Stickney, J. M.: Evaluation of disorders of blood coagulation in clinical laboratory. Technical Bulletin, Registry of Med. Technologists, 25:265-274, (Nov.) 1955.
3. Schulman, I., and Currimbhoy, Z.: Hemorrhagic disorders. Ped. Clin. North America, 4:531-549, (May) 1957.

Malignant Hypertension Secondary To Pyelonephritis

Report of Case With Apparent Cure After Unilateral Nephrectomy

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DES MOINES

EXCLUDING PATIENTS with acute glomerulonephritis, few cases of arterial hypertension are seen in the pediatric age group, and only a few of them need to be classified as essential—i.e., of unknown etiology. In some instances one can isolate the etiologic factor by a process of elimination, and then can alleviate the hypertension.

The following case is an example of unusually high blood pressure that showed marked improvement after medical and surgical therapy of pyelonephritis.

CASE REPORT

History. M. J., an eight-year-old white girl, was admitted to Raymond Blank Memorial Hospital on May 28, 1957. She had been considered well until six days prior to that time, when she vomited while at school, and was taken home. The following day, she felt well enough to attend school once more. That evening, dark urine was noted for the first time, and thereafter she continued to pass some dark-brown urine intermittently. When her local physician first saw her, three days before admission, he noted some blood and albumin in the urine. The girl was then referred to a pediatrician, who confirmed the gross hematuria and discovered a markedly elevated blood pressure. Attempts to reduce the blood pressure with magnesium sulfate were unsuccessful, and the patient was transferred to this hospital for further treatment.

The girl's past history was entirely negative for previous urinary tract disease, and no sore throat or respiratory infection had been noted in her during the weeks preceding her present illness. However, her teacher and her mother had observed a decrease in her visual acuity for two weeks.

Physical Findings. The patient's physical examination on admission revealed a blood pressure of 240 mm. Hg. systolic and 180 diastolic in the arms, and the same values in her lower extremities. The patient sat up and was able to relate the history herself, appearing remarkably bright, alert and well oriented.

Fundoscopic examination revealed bilateral papilledema and many exudates and flame-shaped hemorrhages in the retina. The arterioles were narrowed, but there was no A-V nicking to be observed.

A soft systolic murmur was heard along the left sternal border, and the second aortic sound was accentuated. The lungs were clear, the liver was not enlarged and there was no peripheral edema. The remainder of the examination, including the neurologic functions, was normal. A urine specimen was noted to be grossly bloody.

Laboratory and X-Ray Data. The urinalysis showed 4+ albumin, no sugar and a specific gravity of 1.012. The red blood cell count was 4,230,000 per cubic millimeter; the hemoglobin was 12.7 Gm./100 cc.; and the hematocrit was 40 per cent. The erythrocyte sedimentation rate was 13 mm./hr. There were 16,000 white blood cells per cubic millimeter, and the differential showed 1 eosinophil, 80 neutrophils, 2 band polymorphonuclear leukocytes and 17 lymphocytes. The bleeding time was two minutes, and the clotting time three minutes. The platelets numbered 133,000, the blood urea nitrogen was 25 mg. per cent, and an antistreptolysin 0 titer was 150 Todd units. A urine culture revealed Aerobacter aerogenes. A tuberculin skin test was negative.

An electrocardiogram was interpreted as borderline, possibly showing some left ventricular hypertrophy. A chest x-ray was normal.

Course. A regitine test for pheochromocytoma was negative. An intravenous pyelogram was performed, and it revealed no function of the left kidney. Cystoscopy revealed cystitis cystica. The retrograde pyelograms indicated a normal right kidney, but an atrophic pyelonephritic left kidney. A cystogram demonstrated a reflux up the left ureter.

Chloromycetin was started on the patient's third hospital day, and a left nephrectomy was performed on the fifth day. Prior to surgery, the blood pressure ranged from 200 to 270 mm. Hg. systolic and 140 to 190 mm. Hg. diastolic.

Postoperatively, there were no surgical complications. The pathologic diagnosis was advanced atrophic pyelonephritis. The kidney weighed only 12 Gm., in contrast to the average normal weight of 75 Gm. No nephrosclerotic changes were noted

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in the arteries, but it was impossible to ascertain whether or not there were such changes in the other kidney.

An elevated blood pressure persisted postoperatively, ranging from 150 to 190 mm. Hg. systolic and from 95 to 140 mm. Hg. diastolic. Serpasil was started on the fifth postoperative day, but it had no noticeable effect. A urinalysis performed on the eighth postoperative day revealed no albumin or blood. On that day, the blood pressure dropped to normal levels, and the patient remained essentially normotensive from then until she was discharged.

After 12 days, Furadantin was substituted for Chloromycetin. The patient was discharged on June 24, 1957, on this medication, and anti-infection therapy was continued for a total of two months.

At a follow-up outpatient visit five weeks after surgery, the patient's blood pressure was 110 mm. Hg. systolic and 60 diastolic. The fundi still showed exudates, hemorrhages and papilledema. The nephrectomy scar was well healed, and the general examination was normal. The urine showed a slight trace of albumin, but no red or white cells, and it was sterile on culture.

The patient returned for another examination 3½ months after her operation. The blood pressure was then found to be 125 mm. Hg. systolic and 70 diastolic. Physical examination then showed a remarkable clearing of the eyegrounds, and no hemorrhages, exudates or papilledema. The blood urea nitrogen was 13 mg. per cent, and the urine showed a trace of albumin.

Since that visit, the patient has been followed by her local physician, and he reports that she is doing well. Now, almost a year since her hospitalization, she is fully active. No hypertension or urinary difficulty has been noted. Her vision is apparently normal.

DISCUSSION

In the case that has just been presented, a nephrectomy was performed for definite urologic indications, and not primarily for the purpose of reducing the hypertension. However, we were gratified to find that we had accomplished the latter objective, for that aspect of the patient's illness had reached malignant proportions.

It is noteworthy that the blood pressure did not return to normal levels until the urinalysis was once more normal. The reversibility of the eyeground changes and the return of satisfactory vision are also significant.

The exact mechanism of hypertension associated with renal disease has not been elucidated. Since Goldblatt's excellent experiments[1] in which he produced hypertension by constricting one or both renal arteries in dogs, many investigators have used various technics in attempting to make sure of what takes place.

The renin theory has been discussed most frequently. Fishberg,[2] and Corcoran and Page[3] have reviewed this topic rather thoroughly. As they have said, pressor activity of kidney extracts was demonstrated as early as 1898 by Tigerstedt and Bergman, but little further research was done in that area until Goldblatt revived interest in it. The renin-angiotonin mechanism was then propounded, after much work by various investigators. Renin is a substance found in kidney tissue, but it has never been prepared in pure form and has never been separated from a protein. Its action is enzymatic in that it converts hypertensinogen (an alpha-2-globulin formed in the liver) into angiotonin, which has active vasoconstrictive properties.

There is no evidence that this mechanism functions in cases of chronic renal hypertension in man or animals. Actually, its significance in acute renal hypertension has not been completely evaluated. If it does have any effect in initiating hypertension, other factors must operate in sustaining the high blood pressure.

Homer Smith[4] was cognizant of this inconclusiveness in the efforts that had been made to relate experimental renal hypertension to human disease. He felt that the strongest evidence in favor of renal disease as a cause of hypertension was the apparent cures that had taken place after unilateral nephrectomy. In his review of cases so treated, he found that only 19 per cent were significant and lasting "cures." Therefore, he warned that nephrectomy should not be considered a specific therapy for hypertension and recommended that nephrectomy be performed only for definite urologic indications.

SUMMARY

A case of malignant hypertension associated with pyelonephritis has been presented. In this instance, a good therapeutic result was achieved through the surgical removal of an atrophic, nonfunctioning left kidney and anti-infection medical therapy.

It is hoped that this report will generate some optimism and will encourage diligent effort in an area where the statistics have not been very promising.

REFERENCES

1. Goldblatt, Harry: The Renal Origin of Hypertension; Publication No. 14, American Lecture Series. A Monograph in American Lectures in Pathology, ed. by Paul R. Cannon. Springfield, Illinois, Charles C Thomas, 1948.

2. Fishberg, Arthur M.: Hypertension and Nephritis, Fifth Edition. New York and London, Lea & Febiger, and Bailliere, Tindall & Cox, 1954, chapter 10.

3. Page, Irvine H., and Corcoran, Arthur Curtis: Arterial Hypertension: Its Diagnosis and Treatment, Second Edition. Chicago, The Year Book Publishers, Inc., 1949, chapters 2 and 12.

4. Smith, H. W.: Hypertension and urologic disease. Am. J. Med., 4:724-743, (May) 1948.

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SUMMARY OF CLINICAL FINDINGS

A SEVEN-WEEKS-OLD girl was admitted to the Department of Pediatrics at University Hospitals because she had failed to grow in both weight and height.

The mother's first pregnancy had resulted in a child who thrived. Her second pregnancy produced twins, both of whom died of pneumonia soon after birth. Her third pregnancy, which terminated in the birth of the patient, was uncomplicated. The details of the birth are unknown, but the infant was reported to have been normal at that time and to have weighed 6 lbs. 4 oz.

Breast feedings were terminated after one week because they failed to satisfy the baby. During the ensuing two weeks, a powdered milk feeding was given. At three weeks of age, she had gained no weight, and was consequently hospitalized. After one week, she was dismissed to take pancreatin, iron therapy and a Probana formula. She took approximately 20 oz. of this feeding each day. The stools were described as normal in texture, but foul in odor. When no increase in weight occurred, the patient was referred to this hospital.

On admission, the infant weighed 6½ lbs. and was 20 inches in length. Although pale and poorly nourished, she was responsive for her age and alert. The occipital frontal circumference was 36.5 cm. The abdomen was distended, and the veins on the abdominal wall were prominent. There was a mass in the right upper quadrant of the abdomen that extended 5 cm. below the right costal margin. The neurologic examination was within normal limits.

The infant was started on Similac feedings, but she had little interest in eating, and her average intake was no more than 14 oz. per day. During the first nine days of her hospitalization, her weight loss totaled 50 Gm.

Duodenal secretions were obtained by intubation, and they were subjected to an Anderson-Early test. A roentgenogram of the chest revealed no pulmonary or cardiac disease. On the eighth hospital day, a fever of 101°F. was noted. Bilateral otitis media was recognized, and myringotomies were performed bilaterally. Erythromycin was given for a 24-hour period, and the infant became afebrile.

During the ninth hospital day, a 150 Gm. increase in weight occurred, and the abdominal distention became more severe. Percussion demonstrated a shifting dullness in the flanks. A roentgenogram of the abdomen confirmed the clinical impression of ascitic fluid. A surgical consultation was obtained. By urethral catheterization, 10 ml. of normal-appearing urine was withdrawn, and by a right lower-quadrant abdominal paracentesis, 150 ml. of fluid was obtained. No tumor cells were present in the fluid, but Alcaligenes faecalis was cultured from it. The urea nitrogen in the ascitic fluid was the same as in the blood. A lumbar puncture was done, and the cerebrospinal fluid protein was found to be 92 mg. per cent.

The infant became so lethargic that it was necessary to start gavage feedings.

TABLE I

LABORATORY FINDINGS

	1st Hospital Day	*9th Hospital Day*	*12th Hospital Day*
Hemogram:			
Hemoglobin (Gm.)	9.7		
Red Blood Cells (per cu. mm.)	3,300,000		
White Blood Cells (per cu. mm.)	11,700	11,650	
Differential			
Band polymorphonuclear	10		
Segmented polymorphonuclear	41		
Lymphocytes	46		
Monocytes	3		
Urine Examination:			
Ph	5	5	
Albumin	0	2+	
Sugar (Clinitest)	0	0	
Blood	0	0	
Microscopic findings	Negative	Negative	
Blood Urea Nitrogen (mg. per cent)		16	
Blood Creatinine (mg. per cent)		1	
Paracentesis Urea Nitrogen (mg. per cent)		18	
Serum Electrolytes:			
Na (mEq./L.)		140	130
K (mEq./L.)		5.6	6.6
Cl (mEq./L.)		115	101
CO_2 (mEq./L.)		10.2	19.5
Cholesterol (mg. per cent)		128	
Total Protein (Gm./100 ml.)		2.9	
Albumin (Gm./100 ml.)		1.9	
Globulin (Gm./100 ml.)		1.0	
Blood sugar (mg. per cent)		305	203
Calcium (mEq./L.)			9.1
Phosphorus (mEq./L.)			5.0
Liver Function Tests:			
Zinc turbidity			5
Thymol			4.2
Van den Bergh			
One minute (mg. per cent)			4.2
Thirty minute (mg. per cent)			7.5
Alkaline phosphatase (Bodansky units)			16.5
Cephalin Flocculation:			
24 hours			4+
48 hours			4+

On the twelfth hospital day, the infant became critically ill. She was ashen in color and unresponsive. She was given a 150 ml. transfusion of whole blood. At 2 p.m. she had the onset of generalized muscular twitching. "A considerable amount of milk and mucus" was aspirated through an endotracheal tube, and afterwards her color improved remarkably, but she remained unresponsive. She was given 20 ml. of 10 per cent glucose intravenously, she was placed in an isolette, oxygen was administered and a hydrating solution was given intravenously.

The infant did not respond to supportive care, and expired on the thirteenth hospital day, approximately 24 hours after an episode of muscular twitching and cyanosis.

CLINICAL DISCUSSION

Dr. Hans Zellweger, Pediatrics: The discussant at a CPC reminds me of a poker player. He has rather less information than he would like to have, and through a process of drawing and discarding, he tries to assemble a winning combination. Both talent and luck are important in both games, but luck seems to be the deciding factor in the one that I am to play today.

As a matter of fact, I am not able to offer a definite diagnosis in the case that has been chosen for today, but I shall share with you some of the thoughts that have occurred to me as I read the protocol.

We gather from the first part of the history that this child did not do too well from birth. Her birth weight was 2,820 Gm. Assuming that a newborn child should have regained the birth weight at the end of three weeks at the latest, this child should have weighed at least 3,800 Gm. at the age of seven weeks. In other words, this little girl was markedly underweight, and also too short. With a birth weight of 2,820 Gm., we should expect a body length of 49 to 50 cm. at birth, and 57 cm. at seven weeks of age. Her falling short of these requirements indicated that she had been in a serious condition ever since birth, particularly since she received sufficient calories and proteins above the minimal protein requirement. She was breast fed for about one week. Then she was put on a powdered-milk formula for the next two weeks. At three weeks of age, she was hospitalized. After one week, she was dismissed on Probana formula, about 20 oz. per day. Probana is a half-skimmed milk with about 4 per cent protein, 2 per cent fat, 7 per cent carbohydrates and 19 calories per ounce, which gives an excellent total daily intake of about 380 calories and 24 Gm. of protein. Thus, there was no possibility of malnutrition due to insufficient or incorrect feeding. What, then, was the cause of her failure to thrive—congenital heart disease? kidney disease or malformation? liver disease? central nervous system disorder? a chronic intestinal disorder such as pancreatic fibrosis? Celiac disease is improbable, since it usually appears after the age of six months.

On admission, the patient was pale, but alert and responsive. Her head circumference was 36.5 cm. This is normal for her age, but rather large for her low height and weight. The abdomen was distended, and the veins of the abdominal wall were prominent. This is a very important finding. There was a mass in the right upper quadrant. We don't know whether this mass was extrahepatic, intrahepatic or a right hepatic lobe. A duodenal drainage was performed, but the results have not been made known to us.

On the eighth hospital day, the child had a fever and bilateral otitis media. It is of interest to note that at this advanced stage of her disease, she was still able to react with a fever. One wonders whether cultures of the ear secretions were made, and whether or not they yielded Alcaligenes faecalis. On the ninth hospital day, ascites was found. Protein content and specific gravity of the ascitic fluid have not been reported. The urea content of the ascites was the same as the urea content of the blood, but that finding means only that no urine-containing cavity in the abdomen was tapped. Alcaligenes faecalis was cultured from the ascitic fluid.

The spinal fluid protein was 92 mg. per cent. Demme accepts 80 mg. per cent protein as the upper limit of the normal range in the first three months of life, whereas in older children the upper limit of normal is 35 or 40 mg. per cent. In the S.U.I. Hospitals, the upper limit of the normal range in older children and adults is 50 mg. per cent. Therefore, 92 mg. per cent might well be within normal limits. On the other hand, we must take into consideration the fact that the cerebrospinal fluid analysis was performed when the child was already lethargic and in the terminal phase of liver insufficiency. A high cerebrospinal fluid protein could be explained on the basis of a decreased blood-cerebrospinal fluid barrier (hyperammonemia in liver insufficiency).

A hemoglobin of 9.7 mg. per cent and a red blood cell count of 3.3 million indicate a slight anemia, but these findings at the age of seven weeks are not revealing. The white blood cell counts of 11,700 and 11,650 were within the upper limit of normal range for the infant's age. The normal range of the neutrophils varies from 20 to 40 per cent. A finding of 51 per cent neutrophils is thus somewhat high, and could indicate some infection or toxic process. The albuminuria of the ninth hospital day is probably not revealing because at that time a breakdown of the liver function had already occurred. There was a slight hyperchloremia (115 mEq./L.), and a low CO_2 combining power. Whenever such values are found in infancy, a hyperchloremic acidosis can be suspected. However, a urinary pH of 5 and the absence of other elements in the urine constitute contraindications. On the ninth hospital day, se-

vere hypoproteinemia and hyperglycemia were found.

During the period of the physiologic hypoglobinulinemia in infancy, a zinc turbidity of 5 units and a thymol turbidity of 4.2 units may reveal pathology, as does the strongly positive cephalin flocculation test. The serum bilirubin was considerably increased, 56 per cent of the total bilirubin being direct bilirubin, as in obstructive jaundice.

It is not easy to bring all of the signs and symptoms present in this case under one common denominator. One is tempted to pick out one or the other of the outstanding symptoms and evaluate its pathognomonic significance. For instance, let's take the hypoproteinemia. Where does it occur? Is it in nephrosis? agammaglobulinemia? malnutrition? Leiner's disease? eczema? liver disease? The absence of urinary findings, hypercholesterolemia and edema contraindicates nephrosis. Agammaglobulinemia is unlikely in a patient with 1 mg. per cent of globulin. Malnutrition takes too long a time to develop a hypoproteinemia as severe as this child exhibited, and besides, this child is known to have had a satisfactory protein intake. There were no skin lesions to support the diagnosis of Leiner's disease or eczema. Yet, a liver disease with a defective synthesis of proteins, particularly of albumins, is the most probable diagnosis, as is evident from the chart.

As McIntosh[1] has pointed out, the search for pathognomonic symptoms is discouraging and does not further one's understanding of a situation such as the one with which we are faced. It is better for us to discuss some diseases in their relation to the present findings, such as pancreatic disease, liver disease, tumors and infections.

This patient received pancreatin. It may be that the physician who prescribed it already had the diagnosis of pancreatic fibrosis in mind, yet some doctors prescribe pancreatin not only for pancreatic fibrosis but also for other conditions in infants and children. Pancreatin was of no avail in this case, but its failure to produce any benefit does not rule out the diagnosis of pancreatic fibrosis, since it is not known whether the patient received the high daily dose of two or three grams of pancreatin which is necessary for a successful treatment of the intestinal disturbances in pancreatic fibrosis.

What evidence do we have in favor of pancreatic fibrosis? It is well known that in this disease a most penetrating foul odor of stools can be found, and that phenomenon has been mentioned in our protocol. Probably, we should expect a somewhat more impressive history of diarrhea, or at least of copious stools, to support this diagnosis. We should be interested in knowing whether the child increased in body weight during the time she was nursed, for some children suffering from pancreatic fibrosis do quite well as long as they receive breast milk. It contains a lipase which substitutes for pancreatic enzymes to some extent.

The lack of weight gain and lack of appetite are found occasionally in pancreatic fibrosis, though the majority of such patients have voracious appetites.

The chest x-ray was negative in this child. Does this support, or does it oppose the diagnosis of bronchiectasis in pancreatic disease? Some authors contend that bronchiectases are radiologically apparent only when they have become infected. According to other investigators, the pulmonary mucoviscidosis is recognizable in the x-ray before the infection takes place.

A further question is whether children with pancreatic fibrosis give histories comparable with this child's. An infant with pancreatic fibrosis may die in the newborn period because of meconium ileus. He may die later on, usually after the third month of life, because of repeated pulmonary infections. It is most unusual for a child suffering from pancreatic fibrosis to die of intestinal indigestion, for that condition is now medically controllable. A patient with pancreatic fibrosis can die of cirrhosis of the liver. In this hospital, a boy with pancreatic fibrosis died of cirrhosis of the liver a few years ago, and his case was reported upon,[2] but I don't know of any *infant* with pancreatic fibrosis who has died from liver cirrhosis. Does hyperglycemia occur in pancreatic fibrosis? Usually, the islets of Langerhans are not involved in the process.

On the other hand, hyperglycemia due to lack of insulin may occur in cases of hypoplasia of the pancreas. The cases described by Freudenberg[3] presented intestinal disorders similar to those of patients with pancreatic fibrosis, and in addition they revealed a diabetic or a pre-diabetic glucose tolerance. In such cases, of course, glycosuria is present. Bodian[4] describes a case of hypoplasia of the pancreas with hyperglycemia in a boy who died at the age of nine months. Shortly before his death, he developed a big liver and jaundice. His intestinal symptoms were considerably more pronounced than were those of our patient. Thus, considering all of the pros and cons, we are rather inclined to dismiss the possibility of pancreatic disease in this little girl.

Some of the causes of cirrhosis in infancy and childhood are listed in the following table, for which I am indebted to Craig *et al.*:[5]

TABLE 2.

CAUSES OF CIRRHOSIS IN INFANCY AND CHILDHOOD

Infectious hepatitis
Obstructive jaundice
Infections other than hepatitis (chronic intestinal infections, syphilis, malaria, kala-azar)
Nutritional deficiency
Pancreatic fibrosis
Erythroblastosis fetalis
Wilson's disease
Galactosemia
Glycogenosis of the liver, type 2
Transfusional cirrhosis (Cooley's anemia)

Most of the causes mentioned above are highly improbable and do not need any discussion. However, we do have to give serious consideration to galactosemia, hepatitis due to serum hepatitis virus, and other infections. I don't think that glycogenosis of the liver, type 2, has to be considered here. Only a few cases of it have been reported, and all of the patients have been considerably older than this one.

Children with galactosemia fail to gain weight. Some of them develop early cirrhosis and ascites. Some have cataracts. Whether this patient had cataracts is not known. Some develop mental retardation and other nervous symptoms. A high blood sugar is quite consistent with galactosemia. In other liver disease, one more commonly finds hypoglycemia than hyperglycemia. In galactosemia, the high blood sugar is mainly caused by an increased level of galactose; hypoglucosemic convulsions are therefore possible even when the total blood sugar is as high as in the case that has been presented to us. Also, hyperchloremia and a low CO_2 combining power have been observed. Both values go back to normal when a galactose-free diet is given. It is difficult to say whether this would amount to the normal values of chlorides and CO_2 combining power obtained on the twelfth hospital day in this case. Serum potassium is usually low in galactosemia. In this case it was rather high on two occasions, possibly because of a shift of intracellular potassium into the extracellular space resulting from an increased permeability of the membrane.

Proteinuria is a common finding in galactosemia, yet it was absent in the urine obtained on the first hospital day. The absence of reducing substances in the urine is a very strong contraindication to galactosemia. Perhaps additional urine examinations might have yielded a positive result.

In general, galactosemia takes a longer course than did the disease in this child. However, a severe form of galactosemia is known, with an early fatal outcome. Holzel *et al.*[6] observed a family in which two children died of galactosemia before reaching the age of two months. Janssen and de Lange[7] described the case of an infant who died at the age of eight weeks of cirrhosis of the liver and pancreas. During life, her blood sugar was high (264 mg. per cent). Galactosuria was intermittently present. A few days before death, this child developed jaundice. Their case has much in common with ours, except for the galactosuria.

Hepatitis in early infancy, mainly due to serum hepatitis virus, is probably the most frequent cause of cirrhosis in infancy.[8] Yet we have no real history of hepatitis in this case. In recent publications, however, cases of cirrhosis in infancy have been reported after an unapparent or subclinical course of hepatitis. It is known that mothers can transmit the serum hepatitis virus to the fetus without being jaundiced themselves. Stokes and his group[9] have shown that people can carry the serum hepatitis virus for many months.

Putting all of these considerations together, we must conclude that the diagnosis of posthepatic cirrhosis is not impossible, though usually patients with posthepatic cirrhosis do not die as early as did this patient. Also, hyperglycemia is not a common finding in such cases.

Hepatitis can also be due to other infectious agents. Shortly before death, this child experienced an otitis media. The liver disease was active for a considerable period prior to death. Also, a few days before death, Alcaligenes faecalis was cultured from the peritoneal fluid. Could this be related to the liver disease? Usually Alcaligenes faecalis is considered a non-pathogenic agent, yet McIntyre[10] has reported cases of hepatitis due to Alcaligenes faecalis. Other authors have described diarrheal disease, typhoid-like conditions, gangrenous appendicitis, cholangiolitis and gallbladder infections due to Alcaligenes faecalis.[11] It might be conjectured that an Alcaligenes faecalis infection might in some way be related to the disease of this child. However, it would be difficult to explain the whole course of the disease purely and entirely on the basis of such an infection.

Finally, there is the possibility of an extrahepatic or intrahepatic tumor. A substantial degree of malignancy should be anticipated, since the life of this child was extinguished within such a short time. Among the extrahepatic tumors, Wilms' tumor and neuroblastoma are those that occur most frequently in the first years of life. A Wilms' tumor is felt first as a fullness of the costovertebral angle. It reaches considerable size before it can be palpated close under the anterior abdominal wall. This, therefore, is not compatible with our findings of a mass extending only 5 cm. below the right costal margin. Wilms' tumor does not metastasize into the liver. It does metastasize into the lungs, but only after the disease has run a long course. The liver findings in this case are not compatible with the diagnosis of Wilms' tumor. I have never seen a Wilms' tumor causing obstruction of the extrahepatic biliary pathways.

Neuroblastoma also can develop in the retroperitoneal space. The primary tumor can remain very small, and can metastasize very early into liver and bones. It would be interesting to know the results of an intravenous pyelography, in order to detect a possible primary tumor in the adrenal region. Furthermore, syncytial cells should be looked for in the bone marrow. Perhaps a bone x-ray would be of help, although neuroblastoma in early infancy may not involve the bones. In my experience, neuroblastoma in the liver usually takes longer to become fatal. Death occurs in these children only when the metastatic tumor occupies almost the whole abdominal cavity. Such was not the case in this patient. The evidence thus seems predominant that our patient was not afflicted with one of extrahepatic tumors that are more common in infants.

Intrahepatic tumors can be very malignant.

These include liver carcinoma, hepatoma, cholangioma and adenomatosis.[12] Bigelow and Wright[13] collected about 95 cases of liver carcinoma from the literature. Fifty-five of them were in patients less than two years old, and no fewer than 35 were less than one year of age. No clear-cut clinical picture can be drawn of the development of these neoplasms. The location of the tumor and the mechanical effects of the mass are in part responsible for the clinical variability of signs and symptoms. In 12 per cent, there is a diffuse growth of the tumor. The first recognizable sign is usually the gradual enlargement of the abdomen, with the development of a palpable mass in the right upper quadrant. This mass may or may not be tender. Anorexia, loss of weight and anemia occur frequently. Jaundice occurs in about 6 per cent of cases, according to Steiner.[14] Ascites is rare. When jaundice and ascites occur, they are usually the result of mechanical obstruction of some biliary ducts or of branches of the portal venous system. The high percentage of direct bilirubin in our case (56 per cent of the total) indicated an obstructive component, though there were also signs that the liver parenchyma was impaired. The clinical signs and symptoms of hepatoma may appear with surprising suddenness and progress very rapidly, although an insidious onset and a slow course are more usual. The average life expectancy after the appearance of symptoms is approximately four months, but if a child is born with liver carcinoma or liver adenoma, it is possible for him to die within the first few weeks, as this child did.

These are a few of the thoughts that occurred to me as I reviewed the chart. At the beginning of my discussion, I stated that I am unable to make a final diagnosis. History and physical findings very strongly support the diagnosis of intrahepatic tumor, but liver cirrhosis due to galactosemia, or hepatitis are possibilities. Extrahepatic tumors, Alcaligenes faecalis infection, pancreatic fibrosis or pancreatic hypoplasia are rather unlikely, but cannot be completely ruled out.

Dr. J. C. MacQueen, Pediatrics: On the tenth day, Dr. Zellweger—I am sorry that I had to omit this in the preparation of the protocol—a reducing substance was recognized in this patient's urine. The urine contained 1,610 mg. per cent galactose. The blood galactose on that day measured 328 mg. per cent. The clinical diagnosis which was arrived at on the tenth hospital day was, then, galactosemia.

Dr. George Zimmerman, Pathology: The immediate cause of death in this infant—or at least one of the more important causes of her death—was sepsis. There was a very extensive and very acute bronchopneumonia. There was purulent otitis media bilaterally, and E. coli were cultured from the heart blood. E. coli and paracolon organisms were recovered from the lung, and E. coli were also recovered from the middle ears. The remainder of the autopsy findings were all directly attributable to the basic metabolic disorder of galactosemia.

As has been mentioned, the child had approximately the length and weight of a newborn. The abdomen was distended by ascitic fluid and by an enlarged liver. The liver weighed 224 Gm., as compared to a normal of 135 Gm. for an infant of that age. Since 135 Gm. is standard for an infant of our patient's age, rather than for one of her weight and length, the disproportion was actually much greater than those figures indicate. The liver was firm and brownish green—in other words, it was cirrhotic. The spleen was enlarged as a result of congestion. The brain was heavier than normal for a child of her age, and again my comparison is based upon otherwise-normal children of the patient's age rather than upon ones of the same weight and length. The brain weight was 50 Gm. greater than that of a normal two-months-old child.

At autopsy, the lung sank in water, and a section showed, under low-power magnification, that it was essentially non-aerated. A few alveoli contained a little bit of air, but the rest were filled with edema fluid, with erythrocytes and numerous polymorphonuclear leukocytes. There were a few mononuclear phagocytes, but not enough to warrant serious consideration of aspiration pneumonia. The distribution of the pneumonitis was not that of aspiration pneumonia, but more that of a bacterial pneumonia, and I was able to find none of the milk globules that are ordinarily the result of massive aspiration in infants. Thus, I think it was essentially bacterial pneumonia, very acute. This finding was no surprise, since the patient was a small child with E. coli.

A section of the liver showed what seemed to be a lobule surrounded by collagenous fibrous tissue in which there were numerous bile ductules. The intralobular architecture was non-characteristic, but whether the specimen was actually a liver lobule or a regenerative nodule of liver tissue, we couldn't be sure.

The next section showed bile stasis, a finding which correlates very well with the clinical jaundice and the elevated Van den Bergh. Another unusual feature was the arrangement of the liver in what appeared to be acini or tubules, often with a little bit of bile in the center of them. The authorities on galactosemia say that this phenomenon is pathognomonic of the disease.

In addition to the tubule or acinar formation, the liver cells were vacuolated—a manifestation of cell injury. For differential diagnosis or for a basic study of the disease, it is often useful to know the nature of the vacuoles. The application of a fat stain revealed that their contents was fat. Then, we applied a periodic acid Schiff (PAS) stain, which stains mucin and glycogen, and glycoproteins of various types. It revealed approximately normal glycogen or glycoprotein content. In order to pin down this material further,

we next did a salivary digestion test. The technic for this is relatively simple and crude. One spits on the slide, and then stains it. After the saliva had broken down the glycogen, the slide showed the non-stainable carbohydrates.

As a part of the clinical syndrome of galactosemia, there commonly is mental retardation. It was not manifest in this particular case, but there was very definite brain injury. Exactly what it meant, we don't know. We couldn't compare these ones of our findings with other cases of known galactosemia, for there are no descriptions of the brain in galactosemia in the literature. As a matter of fact, there are only very few cases of which the anatomic findings have been reported at all. As was to be expected on the basis of the gross appearance on the brain and of its weight, microscopic examination revealed an excessive amount of edema, and in addition there was a very coarse vacuolization of the white matter and some degenerative changes of the astrocytes. All of these findings are non-specific when considered individually, and since this is the first case of its sort in our experience and the literature provides us no basis for comparison, we can't evaluate them collectively.

If our findings are indicative of galactosemia, we don't know whether they actually have anything to do with feeblemindedness of the sort that develops in untreated galactosemia later in life.

One of the most striking of the histologic findings in the brain was the coarse vacuolization of the white matter. It may be just severe edema, or it may be some peculiar degenerative change. Dr. Utterback tells me there is some demyelinization in the special stains that he made in a similar case. In a specimen taken from the brain of the patient whom we are considering today, there were large halos around the various neurons in the white matter, and these perivascular spaces were filled with edema fluid. I have already mentioned the degenerative changes in the astrocytes.

In summary, except for the pneumonia, the anatomical findings fit very well with the clinical findings in galactosemia, as they are ordinarily described. The child's failure to gain weight and grow, her feeding difficulties, the cirrhosis of the liver with ascites and splenomegaly, the acidosis, the elevated Van den Bergh, the liver-function aberrations, the albuminuria and the glycosuria are all explained by galactosemia.

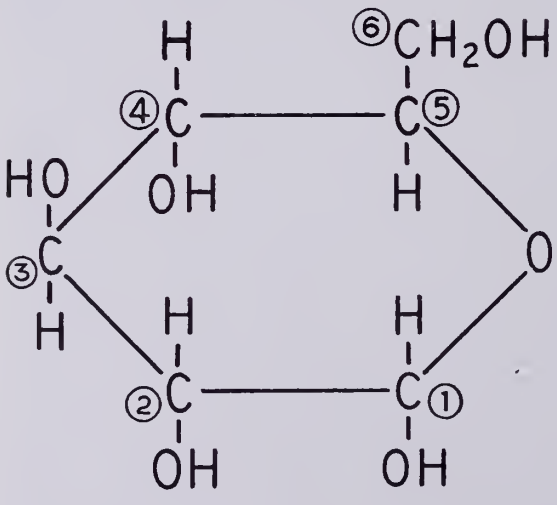
Dr. R. A. Utterback, Neurology: Did you mean to imply in describing the liver that there was a more or less typical arrangement of the liver tubules and canaliculi—one that is pathognomonic of glycosemia?

Dr. Zimmerman: What I was referring to was the acinar formation of the liver cells. They were not liver cords. They were haphazardly arranged acini or tubules. Rather than tubules, they probably were spheres of liver cells with some bile in the middle. If they had been tubules, we might have expected to see some of them in a longitudinal section, but there were none.

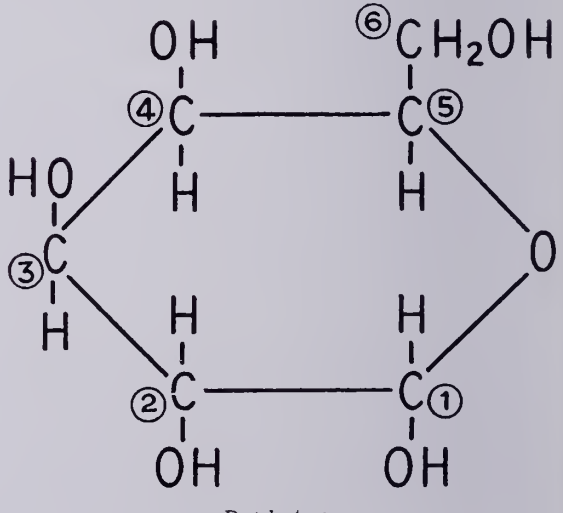
Dr. MacQueen: Dr. Bull, would you please give us the biochemical explanation for this inborn error of metabolism, and may I ask you to give us your explanation of the chemical properties of galactose that result in the pathologic findings in this disease?

Dr. H. B. Bull, Biochemistry: My part in this conference is a very small one, and I'll try to make my discussion brief. Figure 1 shows the structural formulae of glucose and galactose. The defect resides in the arrangement of the hydroxyl group of the fourth carbon atom, and it is necessary to exchange the positions of the attached hydrogen and hydroxyl to convert galactose into glucose.

A series of four enzyme systems is involved in the conversion of galactose to glucose, as follows:

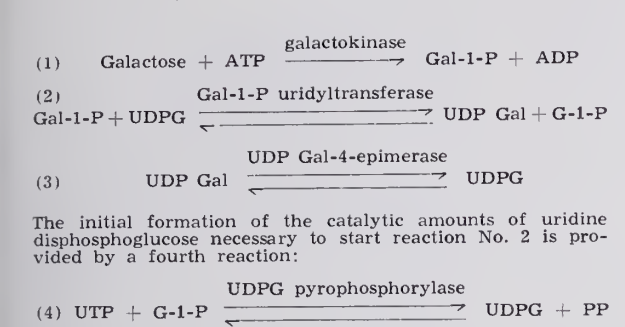


a-D-glucose



a-D-galactose

Figure 1. Structural formulae of glucose and of galactose.



The initial formation of the catalytic amounts of uridine disphosphoglucose necessary to start reaction No. 2 is provided by a fourth reaction:

Figure 2. Enzyme systems involved in the conversion of galactose to glucose.

In a patient suffering from galactosemia, the enzyme (Gal-1-P uridyltransferase) which mediates reaction No. 2 is absent. This is evidently a genetic failure. Because of the lack of uridyldiphosphogalactose, step No. 3 cannot occur, and there is no conversion of galactose to glucose by this mechanism. Thus, galactose reaches high blood levels.

It is comparatively easy to distinguish between galactose and glucose by the appropriate biochemical test. The presence or absence of the galactose-1-phosphouridyltransferase can also be established from a blood sample from the umbilical cord taken at birth. If the enzyme is absent, the infant has galactosemia.

Recently,[15] an accessory pathway for the conversion of galactose to glucose has been reported. The enzyme in this new scheme exists only in older individuals, but if a child survives for a length of time, this alternative possibility is realized, and he will no longer suffer from galactosemia.

Dr. MacQueen: May I briefly summarize the clinical problem of galactosemia?

When galactosemia occurs in infancy, the baby is first noted to have a poor appetite and to fail to thrive. He then develops icterus, hepatomegaly and perhaps splenomegaly. Cataracts may or may not be present. When galactose occurs in the third or fourth year of life, the child may have been relatively asymptomatic during infancy. As a disease of childhood, galactosemia more commonly produces generalized edema, cataracts and mental retardation.

The treatment of galactosemia is very simple. Cow's milk is eliminated from the diet. There are several types of galactose-free feedings that can be substituted. These feedings are excellent sources of food. Once galactose has been removed from the diet, the infant will thrive. It has been shown that the earlier the diagnosis is made, the less irreversible damage will occur. In the records of this hospital, there are 12 children with the diagnosis of galactosemia. A few of them, we have followed for many years. Several, we have followed for a few years. They have been a very satisfactory group to care for, since they respond to a very simple program of therapy.

Galactosemia has been classified as an inherited disease for which a recessive trait is responsible. This classification is supported by the fact that the disease has been found primarily among the siblings of patients with the disease, and has not been found among the parents of the patients. This explanation is further supported by an observably higher incidence among consanguinous individuals. Yet, recent investigations have raised some doubts. Galactose-load tests given to all members of the family of galactosemic children have shown abnormalities in at least one parent of each child. These findings have necessitated reevaluation of the disease, and investigations of its incidence in the general population.

It is now suggested that there may be a major and a minor form of galactosemia. The major form is characterized by clinical signs, and the minor form is characterized merely by an abnormal galactose-load test results. The genetic expanation is not new, for it is the means used in accounting for other clinical states, such as Cooley's anemia.

The point for us to remember for this particular case is that when an infant fails to thrive, his urine should be tested for galactose. The onset of the disease is insidious, and the need for early identification is so important that we should not await the appearance of the clinical signs of advanced disease.

Student: Is Clinitest adequate in the detection of this disease?

Dr. MacQueen: Clinitest is an adequate means of detecting a reducing substance. It does not differentiate between different types of such substances, however, and it can thus be used only as a screening test. If the Clinitest is positive, then specific tests must be used to identify galactose.

Dr. Zimmerman: I should like to make one brief point of practical significance. A child who has not been on a milk diet very rapidly loses his galactosemia, and also his glycosuria. Thus, a severely-ill child who has been on glucose and water will test negative for urine sugar. In other words, only while on a milk diet will a galactosemic child have a positive urinary sugar test.

SUMMARY OF NECROPSY FINDINGS

The untreated galactosemia was reflected, at autopsy, in poor physical development and nutritional status, in anatomic aberrations of the liver, and in degenerative lesions of the brain. Sepsis was a terminal complication.

The liver was enlarged and cirrhotic. The parenchymal liver cells had the peculiar acinar or tubular arrangement described in other cases of galactosemia. There were also the commoner features of cirrhosis such as fatty vacuolization of parenchymal cells, proliferation of the bile ductules, fibrosis, bile stasis and chronic inflammatory-cell infiltration of the portal spaces. The brain was congested and edematous, and it showed vacuolization of the white matter and glial reaction.

Both middle ears contained purulent exudate. There was extensive and severe acute bronchopneumonia. Escherichia coli was recovered from the heart blood. The same organism was cultured from the middle-ear exudate, and E. coli and paracolon bacilli were cultured from the lung and spleen.

Death was due to the apparently profound nutritional metabolic derangements, with massive superimposed infection.

ANATOMIC DIAGNOSES

1. Galactosemia, with cirrhosis of the liver
2. Malnutrition
3. Degeneration of the brain
4. Otitis media, bilateral (E. coli)
5. Bronchopneumonia, acute, bilateral (E. coli and paracolon organism)
6. Septicemia (E. coli and paracolon organism).

REFERENCES

1. McIntosh, R.: Weight of evidence. AMA Am. J. Dis. Child., **88**:1-4, (July) 1954.
2. May, C. C.: Cystic Fibrosis of the Pancreas in Infants and Children. Springfield, Illinois, Charles C Thomas, 1954.
3. Freudenberg, E.: Zur Frage der Hypoplasie des Pankreas. Ann. paediat., **183**:321-331, (Dec.) 1954.
4. Bodian, Martin, ed.: Fibrocystic Disease of the Pancreas: A Congenital Disorder of Mucus Production—Mucosis. London and New York, Heineman and Grune & Stratton, 1953.
5. Craig, J. M., Gellis, S. S., and Hsia, D. Y. Y.: Cirrhosis of liver in infants and children. AMA Am. J. Dis. Child., **90**: 299-322, (Sept.) 1955.
6. Holzel, A., *et al.*: Galactosemia. Am. J. Med., **22**:703-711, (May) 1957.
7. Janssen, T. A. E., and de Lange, C.: Cirrhosis of liver and of pancreas and disturbances of sugar-metabolism in 8-week-old infant. Ann. paediat., **165**:213-220, 1945.
8. Ruggieri, B. A., Baggenstoss, A. H., and Logan, G. B.: Juvenile cirrhosis; clinicopathologic study of 27 cases. AMA Am. J. Dis. Child., **94**:64-76, (July) 1957.
9. Stokes, J., Jr., and others: Carrier state in viral hepatitis. J.A.M.A., **154**:1059-1065, (Mar. 27) 1954.
10. McIntyre, C. A.: Case of blood stream infection with "fecalis alkaligenes" and marked hepatitis; treatment with undenatured bacterial antigen. Mil. Surgeon, **79**:140-143, (Aug.) 1936.
11. Weinstein, L., and Wasserman, E.: Bacterium Alcaligenes (Alcaligenes faecalis) infections in man. New England J. Med., **244**:662-665, (May 3) 1951.
12. Van Creveld (of Amsterdam): Adenomatosis of liver associated with peculiar hemorrhagic diathesis. J. Pediatrics, **45**:734-738, (Dec.) 1954.
13. Bigelow, N. H., and Wright, A. W.: Primary carcinoma of liver in infancy and childhood. Cancer, **6**:170-178, (Jan.) 1953.
14. Steiner, M. M.: Primary carcinoma of liver in childhood; report of 2 cases, with critical review of literature. Am. J. Dis. Child., **55**:807-824, (Apr.) 1938.
15. Isselbacher, K. J.: Evidence for accessory pathway of galactose metabolism in mammalian liver. Science, **126**: 652-654, (Oct. 4) 1957.
16. Isselbacher, K. J.: Galactosemia: clinical staff conference at National Institutes of Health. Ann. Int. Med., **46**: 773-777, (Apr.) 1957.
17. Komrower, G. M., Schwarz, V., Holzel, A., and Golberg, L.: Clinical and biochemical study of galactosemia. Arch. Dis. Child., **31**:254-264, (Aug.) 1956.
18. Bell, L. S., Blair, W. C., Lindsay, S., and Watson, S. J.: Lesion of galactose diabetes; pathologic observations. Arch. Path., **49**:393-403, (Apr.) 1950.
19. Bain, H. W., Bowden, D. H., Chute, A. L., Jackson, S. H., Sass-Korlfak, A., and Walker, N. F.: Galactosaemia. Canadian M.A.J., **76**:278-285, (Feb. 15) 1957.

Coming Meetings

(Continued from page 282)

June 26-28	**Peripheral Vascular Diseases.** U. of Pennsylvania Graduate School of Medicine, Philadelphia
June 26-28	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
June 27	**Physical Medicine and Rehabilitation (Western Reserve University).** Highland View Hospital, Cleveland
June 27-28	**Dissection of Thorax, Abdomen and Pelvis.** U. of California, Los Angeles
June 29-July 3	**American Proctologic Society.** Los Angeles
June 30-July 2	**Pacific Northwest Obstetrical & Gynecological Association.** Seattle
June 30-July 8	**International Association for Child Psychiatry.** Lisbon, Portugal
July 1-3	**Summer Conference, Hawaii Medical Association.** Honolulu
July 1-4	**British Tuberculosis Association.** Royal Festival Hall, London
July 1-5	**Eastern Regional Meeting, International College of Surgeons.** Equinox House, Manchester, Vt.
July 1-24	**Summer School of Alcohol Studies (Yale University).** New Haven
July 1-31	**Mycology.** Duke University School of Medicine, Durham, North Carolina
July 2-7	**Regional Meeting, American College of Surgeons.** Concert Hall, Stockholm, Sweden
July 6-9	**Annual Convention, Idaho State Medical Association.** Sun Valley, Idaho
July 6-12	**Seventh International Cancer Congress.** Royal Festival Hall, London
July 7-11	**Sixth Annual Symposium for GP's on Tuberculosis and Other Chronic Pulmonary Diseases.** Trudeau Foundation and Ray Brook State Hospital, Saranac Lake and Ray Brook, New York
July 7-18	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Neuromuscular Diseases of Children, With Special Emphasis on Cerebral Palsy.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Review Course in General Medicine.** N.Y.U., N.Y.C.
July 7-19	**Southern Pediatric Seminar.** Saluda, North Carolina
July 7-Aug. 1	**Thyroid Disease and the Use of Radioactive Iodine (Harvard Medical School).** Massachusetts General and Beth Israel Hospitals, Boston
July 9-10	**Rocky Mountain Cancer Conference.** Shirley-Savoy Hotel, Denver
July 10-12	**Dermatology for GP's.** U. of Colorado Med. Center and Fitzsimons Army Hospital, Denver
July 10-18	**British Medical Association.** Birmingham, England
July 12-25	**Rhinoplasty and Otoplasty (Columbia U. Coll. of Phys. & Surg.).** Mt. Sinai Hospital, New York City
July 13	**Anesthesiology.** University of Virginia Hospital, Charlottesville
July 15-21	**Medical Women's International Association.** Bedford College, Regents Park, London
July 16-18	**Auscultation of the Heart.** N.Y.U., N.Y.C.
July 16-23	**International Union of Biological Sciences.** London
July 17-19	**Obstetrics & Gynecology.** U.C.L.A., Los Angeles
July 18-19	**International Professional Association of Obstetricians and Gynecologists.** Brussels, Belgium
July 21-24	**Summer Clinic, New Mexico Academy of General Practice.** Ruidosa, N.M.
July 21-24	**Ophthalmology.** U. of Colorado Med. Center, Denver
July 21-Aug. 1	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 21-Aug. 1	**Technics of Surgery.** U.C.L.A., Los Angeles
July 21-Aug. 2	**Course I, Technic in Gen. Surgery.** Cook County Graduate School of Medicine, Chicago
July 22-25	**Microbiology and Immunology in Clinical Medicine.** U. of California, San Francisco.
July 23-25	**Emergency Surgery—Acute Injuries.** U. of Tennessee College of Medicine, Memphis
July 28-Aug. 1	**Technics of Surgery.** U.C.L.A., Los Angeles
July 28-Aug. 1	**Refresher Course in Anatomy.** U. of California, San Francisco

Editorials

POLIO VACCINATION

The American people are creatures of whims that cause them to vacillate between enthusiasm and lethargy, and between almost abject terror and unshakeable complacency. Regardless, however, of the general state of mind, physicians must take responsibility for safeguarding the health of those people, and laymen are by no means reluctant to charge them with a major share of blame whenever anything goes seriously wrong.

Almost exactly six years ago, men and women throughout this country were scared almost to death by poliomyelitis, and were praying fervently for a means by which physicians might spare them and their children from the scourge. Though perhaps the incidence was never so great as laymen supposed, an epidemic was in progress, the hospitals equipped and staffed to treat the disease and its complications were full to overflowing, and poliomyelitis cripples were uppermost in everyone's mind. Then, rather shortly afterward, when Dr. Jonas Salk announced the success he had had with his experiments, the popular enthusiasm and thanksgiving were reminiscent of V-E Day.

Before adequate supplies of the vaccine had been manufactured, everyone clamored for shots, the pressure that doctors had to withstand was tremendous, and there even were ugly rumors of a black market. But lethargy returned before vaccination could be completed, and now most people are assuming, quite unjustifiably, that poliomyelitis is no more of a danger than is smallpox.

Once more, physicians must take the initiative in protecting people who won't take pains to protect themselves. To date, throughout the country, they have administered at least one dose of poliomyelitis vaccine to 64,000,000 Americans, and all three doses to an estimated 34,000,000,* but there are still more than 45,000,000 under 40 years of age who have received no vaccine at all, and 30,000,000 who have taken only one or two doses.

As it was phrased in a public statement issued recently by the Department of Health, Education and Welfare: *"It will be a tragedy if, simply because of public apathy, vaccine which might prevent paralysis or even death lies on the shelf unused."*

*J.A.M.A., 166:21, (Nov. 23) 1957.

ACUTE RENAL INSUFFICIENCY

Slow accretion of knowledge regarding renal function during the past half-century has produced no more than gradual and surprisingly slight improvement in the management of acute renal insufficiency. Along the way, there have been many setbacks due to erroneous concepts of the mechanisms involved. The greatest of these mistakes occurred with the advent of parenteral-fluid therapy, when over-zealous attempts to "flush the kidneys" resulted in a disastrous overloading of the circulation. A second source of difficulty was the limited knowledge of the effects of electrolyte levels, particularly that of the potassium ion, on the organism.

Current concepts of the mechanism of renal failure, as elucidated by Oliver and others, have shown that the chief etiologic factor is renal ischemia, with a consequently reduced renal perfusion. The greatest secondary effect, insofar as mortality is concerned, is the toxic effect of hyperkalemia.

At present, the control of the oliguric or anuric phase consists chiefly of the avoidance of overhydration and efforts directed toward sparing protein breakdown and resultant hyperkalemia.

At times, in the course of treatment, conservative management by these means is inadequate, and one must look to extracorporeal hemodialysis to restore electrolyte balance and, at the same time, reduce the levels of nitrogenous wastes.

The availability of such an "artifical kidney" at the Veterans Administration Hospital in Iowa City, and soon at University Hospitals, Iowa City, and at Iowa Lutheran Hospital, Des Moines, has stimulated discussion of the indications for hemodialysis. The thought on this subject ranges between widely-separated extremes. There are those who advocate early dialysis, and those who would delay the procedure until late in the course of the disease. The proper timing, as is usual when opinions differ so widely, probably lies somewhere between the two extremes. At institutions where hemodialysis has been available for some years, the consensus is that the knowledge gained through the use of an artificial kidney has improved *conservative* management, and that the greatly decreased mortality has been due, in part, to a reduction in the number of cases that are thought to require dialysis. In general, the most important consideration is early recognition of the syndrome and prompt institution of conservative management.

If the effectiveness of conservative treatment does not become evident within a few days, however, it is advisable to arrange for the patient's immediate transportation to a center where extracorporeal hemodialysis is available. If the transfer is delayed, the patient may become no longer transportable. One has considerable leeway in the usual acute renal insufficiency, but hemodialy-


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sis may be life-saving in acute intoxication from various external poisons.

Fortunately, non-veterans can be admitted to the VA Hospital in Iowa City for emergency treatment of this sort, at standard hospital rates. The artificial kidney at Iowa Lutheran Hospital, Des Moines, will be put into use on July 1, 1958.

LEAFLETS FOR DOCTORS' WAITING ROOMS

As a part of its efforts to give people a better understanding of modern medicine, the AMA has prepared two new give-away leaflets for distribution in doctors' waiting rooms and as stuffers with their statements for services rendered.

DO YOU LIKE TO MAKE DECISIONS? stresses the role of the doctor's judgment in prescribing personalized care suited to the patient's needs.

THE FIFTH FREEDOM points out the importance of the patient's right to choose the doctor who will best serve his family.

Too many people today see medical progress only in terms of wonder drugs and miracle machines. They overlook the personal factors that are vital to good medical practice.

Without the elements of the physician's individual skill, knowledge and judgment—without the application of the art as well as the science of medicine—the quality of medical care suffers.

Copies can be ordered through the headquarters office of the Iowa State Medical Society.

BCG VACCINATION

There has been considerable controversy regarding the use of bacille Calmette Guérin in the prevention of tuberculosis. Quite recently, the Ad Hoc Committee of the Surgeon General of the U.S.P.H.S. has issued a statement saying that the advantages of this vaccination outweigh the disadvantages for tuberculin-negative persons who are exposed to a definite risk of infection, especially if they cannot be retested frequently with tuberculin.

The specific groups recommended for BCG vaccination by the American Trudeau Society are:

1. Doctors, medical students and nurses who are exposed to tuberculosis
2. All hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis
3. Individuals who are unavoidably exposed to infectious tuberculosis in the home
4. Patients and employees in mental hospitals, prisons and other custodial institutions in which the incidence of tuberculosis is known to be high
5. Children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

BCG vaccine may be obtained by any licensed physician from the laboratories of the Research Foundation, 70 West Hubbard Street, Chicago 10, and from the University of Illinois. Those are the only institutions in this country which are licensed to produce and distribute the vaccine.

FRACTURE OF THE FEMUR

We should like to call the attention of general practitioners who don't receive the magazine GP and of those who may for another reason have missed reading it to an article by Dr. Leonard F. Peltier, of Kansas City, Kansas,* in the January issue. It outlines a simple and reliable technic for diagnosing fractures of the femur.

His method is a sound-conduction test, and he recommends it especially for use at the scene of an accident, in the emergency room and in cases of multiple fractures.

With the patient in supine position with legs uncovered, one places a stethoscope firmly on the symphysis pubis and strikes each patella lightly with a finger. A clear and distinct sound is transmitted by the unbroken bony column of the normal side, and a softer, less-distinct sound is transmitted by the injured side.

Weekly use of the conduction test indicates progress of healing. When the sound transmitted by the two sides becomes equal, roentgenograms will almost always show union of the fracture by callus formation.

Diminished sound transmission is found with all fresh fractures of the femur above the supracondylar region, not only those with displaced fragments. Sound changes can also be detected with impacted abducted fractures of the femoral neck, with bone cysts and tumors, and possibly effusion of the hip joint. The sound-conduction principle should be adaptable to fractures in other bones, Dr. Peltier thinks.

Effusion in the knee joint, an absent patella, and bilateral bone injury or disease interfere with the performance of this test.

*Peltier, L. F.: Transmission of sound by femur. GP, vol. 17, number 1, page 109, Jan., 1958.

Attend the AMA Annual Meeting

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SUICIDES ARE DECREASING

The suicide rate in the United States has been exceptionally low in recent years. In 1952-1955, the rate averaged 10.1 per 100,000 or about 10 per cent below the level for 1946-1951, the years immediately following World War II. Moreover, provisional figures for 1956 indicate that the frequency of suicide has fallen below 10.0 per 100,000 for the first time on record.

The reduction in suicide has extended to the entire range of ages in both sexes. Among white males the reduction was about one-third in the broad age range between 25 and 64 years, and was at least 20 per cent in practically every other age group.

The relative frequency of suicide varies markedly with marital status, being lowest for the married, somewhat higher for the widowed and divorced. In 1949-1951, the latest data available on this point, the age-adjusted suicide rate among white males aged 20 to 74 years ranged from slightly over 20 per 100,000 for the married to 80 per 100,000 among the divorced. The rate for single men was a little more than twice that for the married; the widowed had a suicide rate more than three and one-half times and the divorced nearly four times that for the married. Among white females, the disparity in frequencies was less pronounced, the rates ranging from 6.6 per 100,000 for the married to 19.2 for the divorced.

Suicide, despite its reduced frequency in recent years, continues to be a major cause of death. In 1956, somewhat over 16,000 people in the United States were reported to have died by their own hands. The studies being made by psychiatrists and investigators in the behavioral sciences may help to reduce this needless loss of life.

—METROPOLITAN LIFE INSURANCE COMPANY STATISTICAL BULLETIN, 38:8, (Nov.) 1957

EXECUTIVES ARE GETTING THINNER

In the last 15 years, the number of overweight executives in the United States has been reduced by a third. This finding, the result of a study of 5,000 of the nation's executives by the Life Extension Examiners, was revealed in mid-May by the Health Insurance Institute.

"Today, only 15.2 per cent of executives are more than 10 per cent above normal weight, a big improvement over 15 years ago, when 29 per cent of executives were too heavy. Under 40, the percentage of overweight executives is 11.2," Dr. Harry Johnson, the medical director for the organization, summarized.

Studies indicate that the average individual can expect his weight to increase from two to four pounds every five years up to age 60. A man who weighs 150 lbs. at age 29 can expect to weigh 154 at age 34, 160 lbs. at age 45, and 163 lbs. at age 60. This gain of 13 lbs. does not represent overweight.

Of the 5,000 executives examined, 58.9 per cent, Dr. Johnson said, were healthy, without evidence of significant organic disease. "These figures," he said, "would seem to counter a popular impression that high-pressure executives are more ulcer-prone than are skilled laborers. Evidence would indicate that the responsibilities of executives do not automatically cause ulcers."

REVISED PLAN FOR ISMS ANNUAL MEETINGS

Because the work of reference committees of the House of Delegates and an ever-increasing number of specialty-group meetings have reduced the attendance of physicians at general and sectional scientific sessions at the Annual Meeting of the Iowa State Medical Society, the general plan for the 1959 Annual Meeting has been rather considerably revised.

The new scheme, one of the three alternatives proposed by the Committee on Scientific Work, was adopted by the Executive Council on May 14, 1958. It is as follows:

First Session, House of Delegates, Sunday, 10:00 a.m.

Reference Committee Meetings, Sunday afternoon (and evening, if necessary)

Nominating Committee Hearing, Sunday afternoon or early Monday morning

Scientific Sessions, all day Monday and Tuesday, and Wednesday morning after final session of House of Delegates

Specialty group dinners, Monday evening

Annual Banquet, followed by Woman's Auxiliary Dance, Tuesday night

Blue Shield Forum and Installation of ISMS president, Wednesday noon.

At its May 14 meeting, the ISMS Executive Council also heard a report from Mr. Wilbur Quinn on the Medicare Conference held in Washington on April 17-18. Mr. Quinn said that the Iowa negotiations were successful except as regards fees for surgery and anesthesia. The Council voted to permit the negotiators additional leeway in compromising disagreements on those charges.

The resignation of Dr. Bruce Howar, of Webster City, as Fifth District Councilor was acknowledged. The Board of Trustees will select his successor.

SAVING BOND SALES HAVE RISEN REMARKABLY

U. S. Savings Bond sales in Iowa during April, 1958, amounted to $13,188,088, or $2,500,000 more than the sales during April, 1957, and the total sales for the first four months of this year were $61,421,551, almost $10,000,000 more than in the like period of 1957.

At the end of April, Iowa had reached 44 per cent of its 1958 quota, compared with the national average of 37 per cent.

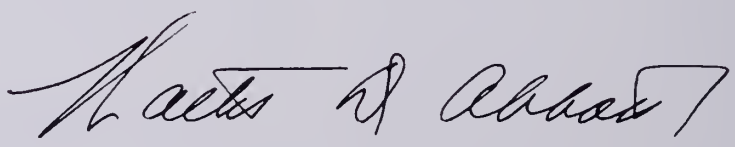
President's Page

The voting which is to take place on June 2 will, perhaps, be rather less newsworthy than most, for the election is a primary, and the term of neither United States senator from Iowa is to expire this year.

The posts that are to be filled are those of representatives in the United States Congress, legislators in the 1959 General Assembly of Iowa and county officers.

Nevertheless, as few physicians need be reminded, representatives in Congress, and senators and representatives in the Iowa Legislature wield tremendous power, and will have occasion to pass upon many proposals concerned with health. And when two or more individuals have filed for their party's nomination to a particular office, it is a fallacy to suppose that a primary is less important than a general election.

Thus, I want to take this opportunity to ask that you, and each of the other qualified members of your families, make sure to cast ballots on Monday, June 2.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

CLINICAL ENZYMOLOGY, ed. by *Gustav J. Martin*, Sc.D. (Boston, Little, Brown and Company, 1958. $6.00).

A HISTORY OF PUBLIC HEALTH, by *George Rosen*, M.D., Ph.D., M.P.H. (New York City, MD Publications, Inc., 1958. $5.75)

DIETARY PREVENTION AND TREATMENT OF HEART DISEASE, by *John W. Gofman*, M.D., *Alex V. Nichols*, Ph.D., and *E. Virginia Dobbin*, senior dietician. (New York City, G. P. Putnam's Sons, 1958. $3.95).

BOOK REVIEWS

CURRENT THERAPY 1958: Latest Approved Methods of Treatment for the Practicing Physician, ed. by *Howard F. Conn*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $12.00).

In a few short years, CURRENT THERAPY has become a classic. For those who are unfamiliar with its format, it should be pointed out that the book is a rather large one to which hundreds of the country's foremost authorities contribute. Briefly but inclusively, it describes the modern treatment of the various ills to which the human body is heir. When there are differences of opinion regarding treatment, more than one author's ideas may be presented. On occasion, short descriptions of symptoms and signs of a given disease are included, in fine print, and at the end of the book are a few important tables of measurements, and normal values are included.

In the current volume, Dr. Conn has performed his annual Herculean task of assembling all the data from several hundreds of anthorities, and of editing it so that it is completely unified for the reader. The 1958 book is about 100 pages longer than its immediate predecessor, and it includes much more data. The section on tuberculosis seems much more practical, and it contains the answers to some down-to-earth questions such as what to do with the recent tuberculin converter. Psychoneurosis is much more adequately dealt with, and a sentence or two has been given to "Marsilid." The expansion of the section on tranquilizers is also welcome.

My criticisms are minor ones. It would seem that "case histories" in the section on polycythemia are unnecessary. The section on the palliative treatment of metastatic breast carcinoma should be expanded. Indeed, the latter is less satisfactory than the comparable one in the 1957 edition. Finally, a general statement on the tranquilizers might be in order.

These minor criticisms or suggestions are not to be thought of as indications of serious disapproval. Rather, I feel that this book is one of the best aids to therapy that are available to the practicing physician. Our group of doctors consults it daily.

—*Daniel A. Glomset*, M.D.

MODERN PERINATAL CARE, by *Leslie V. Dill*, M.D. (New York, Appleton-Century-Crofts, Inc., 1957. $6.50).

Dr. Dill points out than in no field of medicine have more startling advances been made in the improvement of morbidity and mortality than in obstetrics. Much of this improvement has been due to advances in antepartum and postpartum care, which he prefers to call "perinatal care." In this book he attempts to crystalize modern thinking relative to this phase of medicine.

In the successive chapters, he discusses the problems in the order in which they arise, from early pregnancy up to delivery and then through the postpartum period. The toxemias of pregnancy, anemia, heart disease, diabetes and erythroblastosis are adequately and clearly reviewed, in a chapter for each subject. The usual procedures and practice relating to care and psychology of the normal patient are also considered.

Dr. Dill, a Protestant physician practicing in and belonging to the faculty of a Catholic medical school, became much interested in the ethics of the Catholic Church as they pertain to the practice of obstetrics. With the aid of Thomas J. O'Donnell, S.J., he has written a chapter on this subject which I feel clarifies some points about which many of us have had erroneous conceptions. Thus, this chapter is particularly valuable reading for any of us who practice this phase of medicine.

The book is well organized and is written in a clear, readable fashion. It is worthwhile reading for anyone who practices obstetrics, and can be especially recommended to the man who does occasional obstetrics as a part of a general practice.

—*Parker K. Hughes*, M.D.

A TEXTBOOK OF CLINICAL NEUROLOGY, WITH AN INTRODUCTION TO THE HISTORY OF NEUROLOGY, EIGHTH EDITION, by *Israel S. Wechsler*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $11.00).

Dr. Wechsler is consulting neurologist at the Mt. Sinai Hospital, in New York City.

In the 30-year interval since the first of his book's eight editions appeared, many strides have been made in experimental neurology, and in the diagnosis and treatment of neurologic disorders. The author has done his best to keep his text up to date.

The book is well printed on semi-glossy paper, and it contains 782 pages and 179 black-and-white illustrations. There are five divisions of the text, Methods of Examination, The Spinal Cord, The Peripheral Nerves, The Brain, and The Neuroses, with suitable subdivisions under each.

The literary style of this eighth edition, like that of its predecessors, remains somewhat discursive. I objected to that aspect of the book when I was in medi-

cal school, and I still do. Yet, the fact remains that Dr. Wechsler's work is and has always been considered a good, "standard" textbook of neurology. Indeed it remains a leader in its field.

—*John T. Bakody,* M.D.



THE MENTAL HEALTH OF ELDERLY PEOPLE

During a symposium on the peculiarities of the aged patient which the Wm. S. Merrell Company sponsored at the annual meeting of the Student American Medical Association, in Chicago on May 3, Dr. Ewald W. Busse, professor and chairman of the Department of Psychiatry at the Duke University School of Medicine, made some highly worthwhile suggestions.

Among other things, he pointed out that elderly psychotics make up 13 per cent of the populations of our mental hospitals, and that psychoses due to cerebrovascular changes and senile dementias constitute 27 per cent of new admissions to public mental institutions.

But he devoted most attention to the pre-psychotic conditions that afflict many people as they grow older. The number, duration and depth of depressive periods even in so-called "normal" elderly people, he declared, are worthy of note. Suicide rates increase quite definitely in the late-middle and later years. Paranoid tendencies solidify as physical activity declines, and hypochondriacal patterns crystallize as the individual's socio-economic and financial security are threatened.

To understand the attitudes and feelings of the elderly patient, he said, one must consider three important influences. The first consists of the physiologic changes that accompany old age. The second is made up of the psychological reactions that result from one's realization that he is growing older. And the third has to do with the enforced economic changes to which the elderly person is subject.

Since there is relatively little that a physician—or, indeed, anyone else—can do to restore the *status quo* for such a patient, he must try merely to help him accept his new situation and, where possible, direct his interests and energies toward objectives which he can still attain. The patient's loss of manual dexterity, the impairment of his hearing or eyesight, or the decrease in his physical endurance may seem altogether obvious, but until the patient has been persuaded to recognize it for what it is—a symptom of old age—and until he has accepted it as irremediable, it may do him further harm, and make him complain to his physician of physical ills for which there are no ascertainable causes.

Counseling of this sort may seem to be a kind of thing that a doctor shouldn't be called upon to do, but in many instances he is the only person who can do it effectively. His prestige frequently is effective in getting the elderly man or woman to accept simple facts. And, of course, such efforts are well worth the time they take if they return the patient to relative happiness and an uncomplaining frame of mind.

CHEROKEE STATE HOSPITAL EXPANDS RESIDENCY PROGRAM

On March 30, Dr. W. C. Brinegar, superintendent of the Mental Health Institute at Cherokee, announced the appointment of Dr. Walter Bromberg, of Sacramento, as director of psychiatric education and research at his hospital, and published a syllabus of the residency program which is now being lengthened there.

"We have had a one-year residency training program for the past nine years," Dr. Brinegar said, "but now, with the arrival of Dr. Bromberg and the others who have recently joined us, the Cherokee Mental Health Institute is in the process of setting up a three-year program." He pointed out that, other than the one at S.U.I., the Cherokee hospital is the only one in Iowa approved for residencies in psychiatry.

Dr. Bromberg, who arrived on April 10, received his medical training in New York State. In California, where he worked for the past several years, he has been consulting psychiatrist at a VA hospital and at the Sacramento County Hospital, has lectured on criminologic psychiatry at the medical school of the University of California, and from time to time has made trips to Texas to lecture on forensic psychiatry at the medical school of the state university there. He is the author of four books and upwards of 60 scientific articles in his specialty.

As of May 1, the Mental Health Institute at Cherokee had five certified psychiatrists on its full-time staff, and was well on its way toward the accreditation of its three-year residency program. They include Dr. Brinegar; Dr. Bromberg; Dr. Hubert A. Carbone, the new clinical director; Dr. J. T. May and Dr. J. C. Chesnutt. The psychiatrists on the consulting staff in the new instructional program include Dr. J. O. Cromwell, director of mental institutions for the State Board of Control; Dr. Paul Kersten, of Fort Dodge; and Dr. Gerald Rausch, of Sioux City. Dr. Charles Ellsworth, a Cherokee radiologist, will also have

a teaching assignment in the program, and from time to time specialists of other sorts will be brought in to lecture.

Dr. Brinegar says that affiliations have been made with the University of Nebraska Medical School and with the S.U.I. College of Medicine in preparation for transmitting lectures by telephone circuits from Omaha and Iowa City.

The new clinical director Dr. Carbone, also received his medical training in New York State. He has taught clinical psychiatry at Yale and at U.C.L.A. Dr. May has been on the staff at Cherokee since 1952. Dr. Chesnutt most recently has been on the staff of the VA Hospital in Little Rock.

MORE APPLICANTS THAN RESIDENCIES

On May 1, the Cherokee Mental Health Institute had five psychiatric residents, of whom two had been there for some time and three were newly arrived. "There will be no shortage of applicants," Dr. Brinegar declared. "In fact, it has been necessary to turn down several hundred physicians, for all the satisfactory housing has now been committed, as has all of the salary money appropriated for the current biennium." We won't know what can be done in the future until the legislature acts on appropriations about a year from now."

Preparations for the three-year residency program through the addition of the highly-trained staff were made possible at Cherokee by the allocation of special funds by the state legislature. Dr. Brinegar says that the developments are in keeping with the statewide planning that has been done under Dr. Cromwell and the Board of Control for the improvement of mental hospitals in Iowa.

NECK ABNORMALITIES AND AUTO ACCIDENTS

As an incidental finding in a study of 250 patients whom he treated for neck, low back and combination neck and low back complaints following auto accidents, Dr. Jacob Kulowski, of St. Joseph, Missouri, has reported a markedly increased susceptibility to rear-end and angular collisions among drivers who had a preexisting major abnormality of the cervical spine.* Indeed, his study showed that drivers so afflicted have twice as many such accidents as do drivers whose neck movements are unrestricted.

Summarizing this aspect of his results, Dr. Kulowski said, "Since most of these collisions occurred at intersections, junctions or interchanges, where increased peripheral vision is necessary to avoid such accidents, it is assumed that possibly restricted movements of the cervical spine because of arthritis had some causal relationship to the greater-than-average (or chance) incidence in this regard."

Because of the importance of their physical condition, he urges that drivers be more carefully screened, or at least that literally stiff-necked individuals be soberly warned of their accident-proneness.

* Kulowski, J.: Residual spinal injuries from automobile crashes. SOUTHERN M.J., 51:367ff., (Mar.) 1958.

Attend the AMA Annual Meeting
San Francisco
June 23-27



This picture was taken at the past-presidents' luncheon during the 1958 Annual Meeting of the Iowa State Medical Society. The men are, from left to right, Dr. T. F. Thornton, Waterloo; Dr. Felix A. Hennessy, Calmar; Dr. B. T. Whitaker, Boone; Dr. Lee R. Woodward, Mason City; Dr. W. L. Bierring, Des Moines; Dr. Gerald V. Caughlan, Council Bluffs; Dr. G. F. Harkness, Davenport; Dr. Robert L. Parker, Des Moines; Dr. D. C. Conzett, Dubuque; Dr. Robert N. Larimer, Sioux City; Dr. W. L. Downing, LeMars; Dr. T. A. Burcham, Des Moines; and Dr. James E. Reeder, Sioux City.

MEDICAL RECORDS

A medical record is a written, chronological account of a professional relationship from the time the patient first comes under the doctor's care until he is discharged. Physicians maintain such records in various forms and manners. Some are complete and thoroughly adequate, but others are woefully sketchy, and if one were to draw his conclusions on the basis only of the testimony of medical librarians, he would think that doctors in general fail to appreciate their great importance. The librarians complain, quite justifiably, that hospital medical records are left incomplete, and tell of the constant difficulties they have in getting doctors to state their diagnoses in terms of standard nomenclature.

During our undergraduate training, we doctors were required to write voluminous histories on the patients assigned to us, and it may be that our dislike of that phase of student activities set up a conditioned reflex. As internes, we still had to spend a great deal of time writing histories, but as soon as we were "on our own" we began to brief them. Later, when we became busy practitioners, we grew even more lax, and postponed our paper work from day to day, constantly believing that tomorrow we'd have time and inclination to catch up. "Tomorrow," of course, never brought the requisite leisure.

Not only must adequate records be kept on all hospital patients, but they must be kept on the patients whom we see in our offices and on those whom we see in their homes. Current and adequate records enable the physician to give careful attention to important symptoms, response to treatment and accurate diagnosis. The form that an individual physician adopts can differ from the standardized one used by hospitals, but it should be completed in ink and it should contain all significant data.

Most important, the record should be written at the precise time of history-taking and examination. The patient's complaints and the details of his personal history should be recorded in his own words, in so far as is possible. The clinical findings must be included, and the interpretations of x-rays and the results of laboratory tests must be set down and preserved. For his own protection, the physician needs to make a note of the patient's refusing a diagnostic procedure; each entry must be carefully dated; and carbon copies must be kept of every report that leaves the doctor's office.

As the preceding sentences have clearly implied, medical records have legal value as well as great importance in the physician's attention to the patient's needs. In court, a medical record may be just as crucial a piece of evidence as is an x-ray. Picture a physician handing complete medical records and carbons of reports to counsel as he gives his testimony in a court of law. Such completeness cannot fail to impress a jury more forcibly than do the approximations of the man who must rely upon his memory.

All industrial and most accident cases have certain legal aspects, and the attending physician must anticipate being required to testify in court regarding any and all aspects of them. Thus, for one thing, the doctor must be sure to set down, verbatim, the account that the patient has given him of how the accident occurred and/or how the symptoms developed. A description of all injuries, with their locations and exact measurements, must be included, and the completed record must show the treatments administered and the results, described as objectively as possible. If the patient is unconscious when first seen, all possible information should be obtained from the available witnesses, and carefully recorded.

In making entries in medical records, the physician must continually ask himself: (1) Do these records show how a diagnosis was established? what therapy was utilized? that nothing was neglected? that the care fully met the standards required by law? and either that treatment was completed before the patient was discharged, or that the patient failed fully to follow instructions? (2) ARE THESE RECORDS PRESENTABLE IN COURT?

Any physician who has been involved in a malpractice suit has been made to realize the value of adequate medical records, and it is a well-known fact that many malpractice suits are "nipped in the bud" by the availability of clear and complete medical records that disprove the alleged negligence or impropriety.

GENERAL PRACTITIONER OF THE YEAR



Dr. Lonnie A. Coffin, of Farmington, was chosen as General Practitioner of 1958 by the House of Delegates of the Iowa State Medical Society at its final session on April 23.

Dr. Coffin has practiced and still is practicing a very great deal of medicine in Farmington, but he is noteworthy, in addition, for many activities above and beyond the call of duty. After having graduated in the final class of the Drake University Medical School and having spent a year of internship, he returned in 1914 to Farmington, where he had spent his boyhood from the age of five. When he began practice he was one of five physicians there, but now and for a considerable number of years he has had sole responsibility for the health of his fellow citizens. After suffering a heart attack eight years ago, he gave up obstetrics, but he does all of the other types of work he ever did.

Dr. Coffin was president of the Iowa State Medical Society in 1955-1956.

His civic activities have included 15 years on the school board, two terms on the town council of Farmington (population 1,000), and a term (the first) as commander of the Farmington Post of the American Legion.

He was instrumental in the town's getting and developing a 200-acre lake and park for boating, fishing and picnicking.

Dr. Coffin not only has been but *is* a very splendid man and physician. Thus, though he richly deserves being chosen General Practitioner of the Year, the award is by no means a valedictory. His community and his state have need of him, and he is by no means through serving them.

COLD FORMULAS FOR BABIES

Unheated formulas may be given to babies with "no harmful effects" in most cases, thus sparing the mother the trouble of warming the formulas before each feeding. This is the opinion of Dr. John P. Gibson, of Abilene, Texas. He found that 89 per cent of a test group of 150 infants accepted the cold formulas.*

Mothers, he says, have been heating about 1,400 bottles of formula during the first eight months of each of their babies' lives, and they have been highly inconvenienced in doing so in the middle of the night and away from home.

A cool formula was described as one that had been removed from the refrigerator and allowed to stand in the kitchen "until the chill was off" or "until it approached room temperature." A cold bottle was one taken from the refrigerator and given immediately to the baby. All of the infants were shifted gradually from warm to cool to cold bottles. The immediate acceptance rates varied from more than 50 per cent among the very young infants to about 75 per cent among the older group. The babies in the test group ranged in age from 15 hours to seven months. For the whole group of 150, the acceptance rate for cool or cold formulas was 89 per cent within an average period of one week.

At monthly visits, complete examinations were made of the 134 infants who accepted cool and cold formulas. Weight curves indicating that the infants' general condition was good were consistent before and after the change, except in seven cases. In those infants faster weight gain occurred on the cool or cold formula than had previously occurred on warm formula. No infant had a downward deviation. The babies were followed for an average of 6.7 months, and in all of them, development "proceeded normally."

At the mother's request, an infant weighing 6 lbs. 11 oz. was started on ice-cold formula at the age of 15 hours, while still in the hospital nursery. The feedings were taken well, and the baby started to gain weight on the second day. At one month of age, it weighed 8 lbs. 10 oz., "with general condition excellent."

Dr. Gibson concluded that "no harmful effects could be found in the infants accepting the cool and cold formulas."

COMING ACADEMY MEETINGS

June 19	Postgraduate Conference, Templar Park, Spirit Lake (see J. IOWA M. soc., 48:270-271, [May] 1958). Category I Credit.
Sept. 21-23	Tenth Annual Scientific Session of the Iowa Chapter, Hotel Savery, Des Moines. Category I Credit.

* Gibson, J. P.: Reaction of 150 infants to cold formulas. J. PEDIATRICS, 52:404ff., (Apr.) 1958.

DR. BUCKWALTER HAS AFRICAN ASSIGNMENT

A study of the relationship of blood types to various diseases took Dr. J. A. Buckwalter to Africa for a four-month stay, beginning in May. He is an associate professor of surgery at S.U.I., and he published a progress report on his investigation in the February, 1958, issue of the JOURNAL.

Begun in 1955, the study is intended to determine whether there are relationships between the frequencies of certain types of cancer and other diseases, and the blood types O, A, AB and B. So far, Dr. Buckwalter says he and his associates have established statistically significant relationships between Type O and gastric and duodenal ulcer, and between Type A and stomach cancer and pernicious anemia.

The South African phase of the study will provide data on several ethnic groups not previously available to the researchers. Principal financial support for the project comes from the United States Public Health Service, but money is also being provided by the Iowa Division of the American Cancer Society, and materials not commercially available are being provided by two pharmaceutical manufacturers.

ARTHRITIS AND RHEUMATISM FELLOWSHIPS

The Arthritis and Rheumatism Foundation, 10 Columbus Circle, New York City 19, is offering predoctoral and postdoctoral fellowships and senior investigator awards for work in the fundamental sciences related to arthritis beginning July 1, 1959. The deadline for applications is October 31, 1958. They are intended for young men or women who intend making careers of teaching or research, and are not grants-in-aid in support of research projects.

The postdoctoral fellowships pay between $4,000 and $6,000 per year, depending upon the recipient's family responsibilities, and an additional $500 is available for laboratory expenses. The senior investigator awards will be given only to individuals eligible for college faculty appointments and sponsored by a specific institution.



Above are the first, second and third prize winners in the essay contest sponsored jointly by the ISMS and its Woman's Auxiliary this spring. They are Norman Oberstein, of Oskaloosa, Joy Cassill, of Ottumwa, and Edward Parkinson, of Fort Dodge. In addition to the $100 which he was awarded as top contestant at the state level, and whatever amount he received as county winner, it has just been announced that Norman Oberstein (at the left) took ninth place in the national contest sponsored by the American Association of Physicians and Surgeons, and will receive $75. Joy Cassill took sixteenth place in the national contest, thus earning an "honorable mention."

All three of the Iowa prize winners wrote on "The Advantages of Private Medical Care."

THE DOCTOR'S BUSINESS

Gifts Offer Tax Savings

HOWARD D. BAKER

WATERLOO



In the March, 1958, issue of this magazine, the making of gifts for the purpose of avoiding inheritance taxes* was treated at greater length than this page permits, but the subject is of such importance that the salient points deserve to be touched upon again.

Present regulations permit an individual to make tax-free gifts totaling $30,000 during his lifetime. This is known as the "specific exemption." *In addition,* he may make gifts of up to $3,000 per year to each of several donees without incurring tax liability.

The regulations further provide that a gift made by husband and wife may be treated as though made one-half by each. This provision has the effect of increasing the "specific exemption" to $60,000, and the annual exemption to $6,000 per donee. In order to qualify for this "joint" treatment of gifts, both must be citizens or residents of the United States, and neither may retain power of appointment over the gifted property.

Gifts to a spouse are accorded special treatment, the additional exemption being equal to half the value of the property given. This exclusion is in addition both to the "specific" and the "annual" ones.

FIRST EXAMPLE

Let us assume that a man has a gross estate worth $300,000, a wife and no children. The estate is to go first to his wife, and upon her death, to charities. If he were to die in possession of that property, it would be taxable at $90,000 ($300,000 – $150,000 – $60,000 = $90,000), and the tax would be about $17,500.

However, if he were to have given $100,000 to his wife considerably in advance of his death, the estate tax would be only $4,800, an estate-tax saving of $12,700. These gifts must be made three years or more prior to death in order not to be regarded as having been made "in contemplation of death" and thrown back into the estate for tax purposes.

In this example, the transfer would require seven calendar years. To avoid tax liability, $66,000 could be given during the first year ($33,000 marital gift deduction, $30,000 lifetime deduction and $3,000 annual deduction). The remaining $34,000 could be given during the next six years at a maximum of $6,000 per year.

SECOND EXAMPLE

Now, let us assume that a man has an estate worth $300,000, a wife and three children. Without gift or trust provisions, his estate tax would be $17,500, but by making outright gifts or trust arrangements transferring $100,000 to his children, he could reduce his estate-tax liability to $4,800.

Such transfers would take three calendar years: $78,000 the first year, $18,000 the second year, and $4,000 the third.

In this second hypothetical case, some income-tax savings would constitute an additional benefit. Assuming that the donor is in a 50 per cent income-tax bracket, and that the $100,000 is earning $6,000 per year in dividends, he would be required to pay approximately $3,000 per year of income tax on those earnings, but his children would have to pay no more than about $700. The annual savings would be $2,300.

CAREFUL RECORD-KEEPING IS ESSENTIAL

The valuation of property for gift-tax purposes is its fair market price on the date of the gift. The valuation for the purpose of computing gain is the price paid for it by the last individual who received it by other means than by gift. These facts point up an important and often neglected principle: whether one is the recipient of a gift or the donor, it is vital to secure all of the data on such transactions and keep a permanent record of them for gift- and income-tax purposes.

Gifts are so closely related to trusts and estate planning that it is important to make decisions on them only upon the advice of one's attorney, after properly weighing all factors. This short article, then, has been intended merely to point out that gifts, if planned judiciously, constitute a tax-free means for the transfer of sizeable amounts of property, if the donor spreads them over a series of years and starts making them soon enough.

*Robinson, N. T.: Gifts and short term trusts. J. Iowa M. Soc., 48:130-132, (Mar.) 1958.

MERIT AWARD RECIPIENT



At the banquet during the ISMS Annual Meeting, Dr. Tom D. Throckmorton, a Des Moines surgeon, was given an ISMS Award of Merit, chiefly for his work with Iowa Medical Service (Blue Shield).

POLIO NOT YET WHIPPED!

Nearly forty million Americans under forty years of age have had no vaccine and over forty million have not completed their series of three doses. Polio virus is still widespread. An epidemic may break out any time, any place, because the vaccine protects only those who receive it.

POLICYHOLDERS WANT INFORMATION

A nationwide consumer survey just completed by the Health Insurance Institute, a cooperative supported by commercial sickness and accident insurance carriers, has met with responses closely paralleling those of the Michigan Blue Shield survey last year. A majority of purchasers of such coverage are content with what the insurance industry is providing them. What most of them want is more information about the benefits available to them.

The survey involved interviews with 2,000 families across the country and yielded information on more than 6,600 individuals. On 53 per cent of all claims, the survey revealed, families received payment of all or most of the medical bill. In 20 per cent of cases, payment was received for about three-quarters of the bill, and in 15 per cent of the claims, one-half of the total expenses were paid.

Some 78 per cent of the families using their health insurance expressed satisfaction with the service given by the insuring organizations in paying benefits, according to the Institute survey. Four per cent were dissatisfied, and 18 per cent expressed no opinion.

About 25 per cent of the families had suggestions to make for the improvement of plans or services; 16 per cent failed to respond to that question; and 59 per cent said they had no suggestions. Of those who made suggestions, 25 per cent wanted more information on their insurance; 20 per cent wanted increased benefits; and 14 per cent asked for lower premiums.

The survey figures were consistent with previously published data in that they showed that nearly three out of four American families now have some form of health insurance. In 73 per cent of all families, there is some health insurance coverage, and in 60 per cent every family member is protected.

HOTEL RESERVATIONS IN SAN FRANCISCO

Physicians who plan to attend the AMA Annual Meeting in San Francisco, June 23-27, should not leave home without first receiving a confirmed hotel reservation. In all probability the registration will exceed the 12,063 figure of 1954, when the sessions were last held on the West Coast, and the hotel-room situation will be very tight.

They are also reminded that they can speed up their trip through the registration area at the convention if they complete a request for and receive an advance registration card. Any member desiring such a card may fill out the identification form on advertising page 62 of the April 19 J.A.M.A.

Hotel reservations can be obtained through the AMA Housing Bureau, Room 300, 61 Grove Street, San Francisco 2. A special hotel reservation blank appears on page 154 of the April 19 J.A.M.A., but at this late date, it is a better idea to telegraph.



Blue Cross
Blue Shield



Our Community Program

Blue Cross and Blue Shield are community organizations. They—like their sponsors the community hospital and the medical profession—are interested in and responsible for the total health care of the community.

The entire costs of health care are the responsibility of the community, not of some far-off government agency. Community leaders know the problem, and industrial leaders are becoming increasingly concerned with it, since they are paying a large share of total health costs. In particular, industry is vitally interested in the problems of the aged, for it expects to help meet the expense through pension plans and extended health-care benefits for people over 65.

As community organizations, Blue Cross and Blue Shield must find health security for *all* people—not just the good risks. If government were to provide health care for the aged, it would furnish it to all such individuals, and if the voluntary agencies are to forestall government intervention, they can undertake to do no less.

Dr. Louis A. Bauer, a past-president of the AMA, said recently, "Physicians as individuals, and medical societies as a whole must take an interest in the whole problem of rendering adequate medical care. The medical profession has had a 2,500-year tradition of ministering to the sick. It must keep up that tradition and must, itself, take the leadership in programs to insure proper medical care. Unless it does, the leadership will be taken by others."

The Blue Plans in Iowa are most anxious to tackle the overall problem of total health care for the community, and they depend heavily on the medical profession for leadership in solving the problems incident to financing health care of the aged.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

MORBIDITY REPORT FOR MONTH OF APRIL

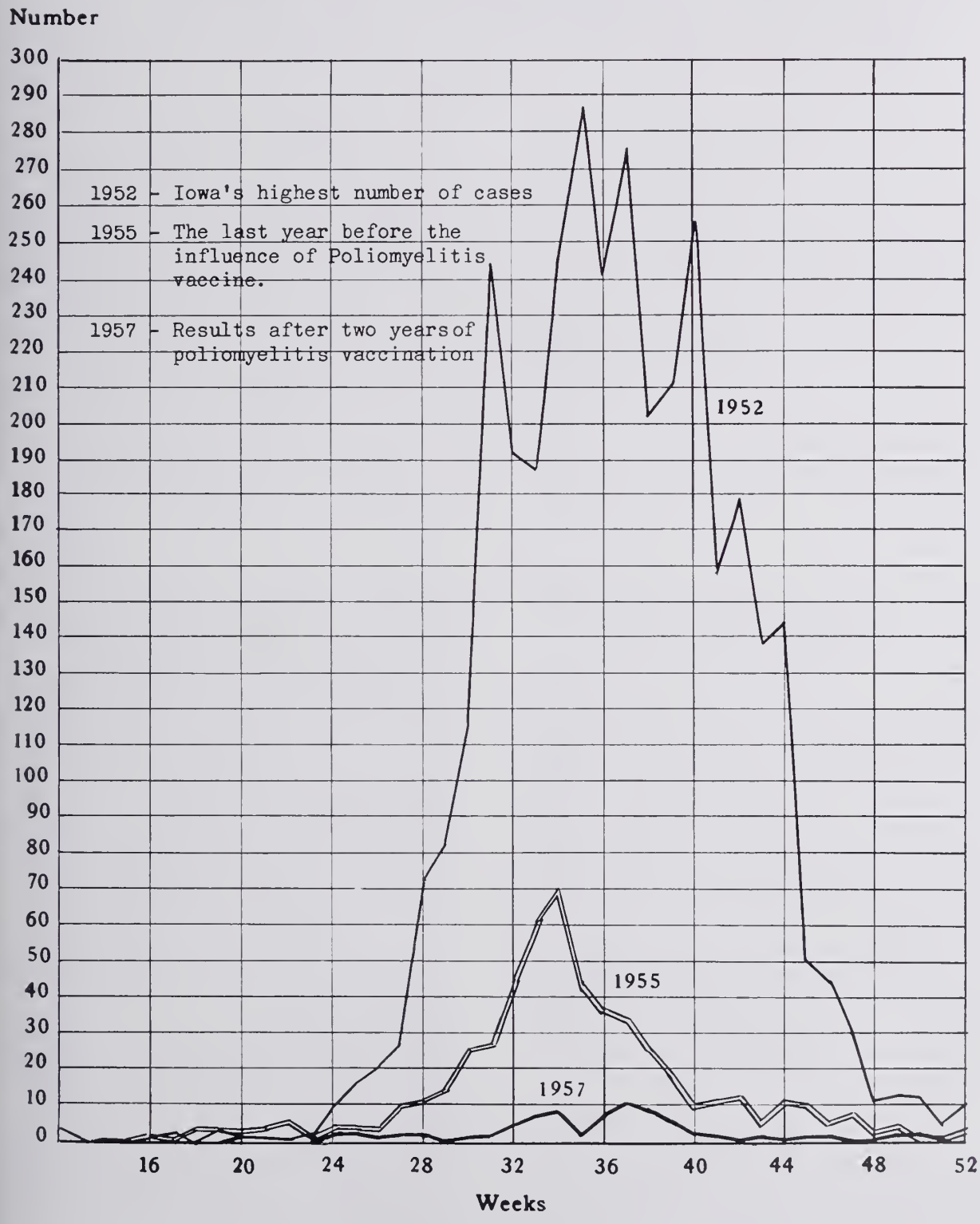
Disease	1958 April	1958 March	1957 April	Most Cases Reported From These Counties
Diphtheria	2	0	2	Woodbury
Scarlet fever	226	376	143	Jefferson, Johnson, Polk
Typhoid fever	0	0	0	
Smallpox	0	0	0	
Measles	1526	671	1272	
Whooping cough	5	8	8	Dubuque
Brucellosis	7	9	13	Dubuque
Chickenpox	771	1197	521	Cerro Gordo, Clay, Polk
Meningococcus meningitis	1	1	1	Polk
Mumps	962	1146	458	Clay, Dubuque, Polk, Pottawattamie
Poliomyelitis	0	0	1	
Infectious hepatitis	62	24	17	Jackson, Union
Rabies in animals	25	32	24	Chickasaw, Kossuth, Pocahontas, Woodbury
Malaria	0	0	0	
Psittacosis	0	0	1	
Q fever	0	0	0	
Tuberculosis	45	52	30	For the state
Syphilis	129	129	101	For the state
Gonorrhea	66	74	53	For the state
Histoplasmosis	0	0	0	
Food intoxication	0	0	0	
Meningitis (type unspec.)	1	0	0	Polk
Diphtheria carrier	0	0	0	
Aseptic meningitis	0	0	0	
Salmonellosis	2	9	8	Black Hawk, Ringgold
Tetanus	0	0	0	
Chancroid	0	0	0	
Encephalitis (type unspec.)	0	1	1	
H. influenzal meningitis	0	3	1	
Amebiasis	2	1	2	Hardin, Marshall
Shigellosis	2	1	0	Dubuque, Hamilton
Influenza	17	107	29	Scott, Polk

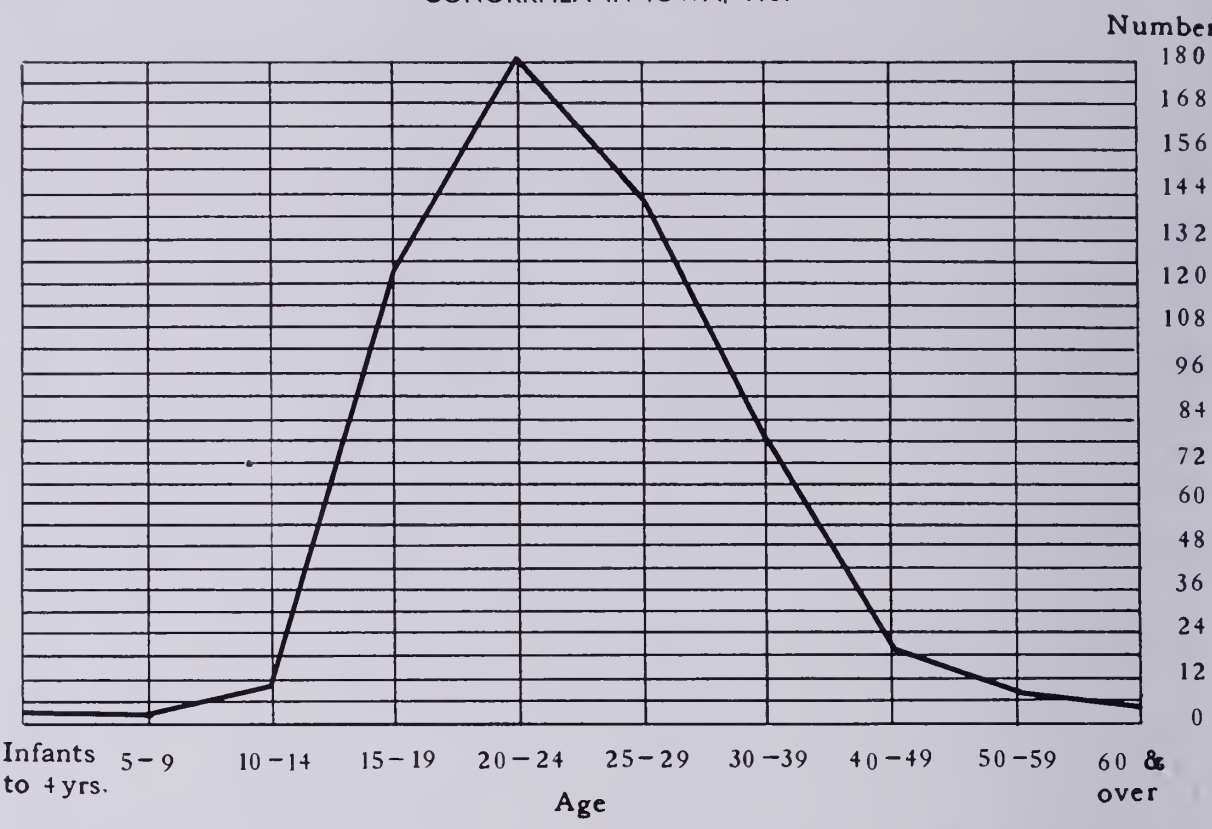
IOWA POLIOMYELITIS CASES BY COUNTIES, 1957

County	1952	1955	1957	Case Rate 1957*
Adair	8	1		
Adams	9			
Allamakee	11	10	1	6.5
Appanoose	6	1		
Audubon	9	2		
Benton	10	1	3	13.5
Black Hawk	118	28	6	4.9
Boone	28	5	2	7.6
Bremer	15	2		
Buchanan	6	1	1	4.4
Buena Vista	49	1		
Butler	31	4		
Calhoun	61	6		
Carroll	24	5		
Cass	38			
Cedar	21	1		
Cerro Gordo	51	3	2	4.2
Cherokee	159	1	1	5.3
Chickasaw	39	2	1	6.6
Clarke	8	2		
Clay	68	2	1	5.5
Clayton	14	2	1	4.9
Clinton	38	10	1	1.8
Crawford	38	2		
Dallas	35	6		
Davis	9	2		
Decatur	12	1	1	8.5
Delaware	11	4	1	5.9
Des Moines	10	16	2	4.3
Dickinson	8	2		
Dubuque	67	10	3	3.7
Emmet	6			
Fayette	17	1		
Floyd	25	6		
Franklin	14	4		
Fremont	11			
Greene	16	1	2	13.7
Grundy	27	5		
Guthrie	26	8	2	14.4
Hamilton	32	4		
Hancock	25	2		
Hardin	19	3	1	4.6
Harrison	53	2	4	23.5
Henry	4	1	1	5.2
Howard	18	3		
Humboldt	11	3		
Ida	59	1		
Iowa	19	3		
Jackson	6			
Jasper	54	13	1	3.0
Jefferson	10	2	1	6.4
Johnson	47	17		
Jones	14	3		
Keokuk	7	6		
Kossuth	16	11		
Lee	10	35		
Linn	50	24		
Louisa	5	3		
Lucas	5	1		
Lyon	17			
Madison	6		1	8.3
Mahaska	11	11	1	4.4
Marion	9	5		
Marshall	22	7	1	2.8
Mills	19			
Mitchell	20	6		
Monona	97	1	1	6.7
Monroe	3	1		
Montgomery	27			
Muscatine	11	3		
O'Brien	51	4		
Osceola	14	2	3	30.8
Page	52	2	2	8.7
Palo Alto	10	1		
Plymouth	80	1	3	13.1
Pocahontas	11	1		
Polk	436	96	1	0.4
Pottawattamie	138	9	3	4.1
Poweshiek	13	4		
Ringgold	4		1	11.7
Sac	95	9	3	17.4
Scott	55	10	1	0.8
Shelby	25	4		
Sioux	43	4	1	3.9
Story	40	20	3	6.0
Tama	25	3	1	4.8
Taylor	13			
Union	11	1		
Van Buren	2	1		
Wapello	13	19	2	4.0
Warren	26	5	1	5.6
Washington	30	8		
Wayne	11	4	1	9.4
Webster	42	5	1	2.1
Winnebago	10			
Winneshiek	32	4		
Woodbury	379	10	8	7.7
Worth	11	3		
Wright	33	2		
Total	3564	561	78	2.9

* Case rate per 100,000 population based upon 1957 civilian population.

Poliomyelitis By Weeks For 1952-1955-1957





1957 incidence of gonorrhea in Iowa, by age groups. Cases in patients of unspecified ages have been omitted.

GONORRHEA—STILL WITH US

The total number of gonorrhea cases reported from all sources in the United States in 1957 was 216,476, or 16,476 fewer than were reported in 1956. The number of cases per 100,000 population has declined much more slowly than has the number per 100,000 population of syphilis cases. Gonorrhea still represents a sizable volume of acutely and dangerously infectious disease in the population. Since 1953, the number of states reporting increases in gonorrhea over previous years has varied between 15 and 27. In 1957, increases over 1956 in the numbers of reported cases occured in 18 states.

It is our observation that although there has been a small overall decrease in the numbers of reported cases, the prevalence of the disease among teenagers continues unabated. This presents a problem which we are attempting to curb by means of education, investigations and cooperation with private physicians.

In Iowa, during the calendar year 1957, there were 596 cases of gonorrhea. This figure represents a decrease of 9.1 per cent from the average of the previous five years. Through interviews with the patients, we learned of 812 contacts, of whom 81 per cent were subsequently brought to examination. Of those examined, approximately 57 per cent were found to be infected.

It has been found that treatment of females through the administration of 600,000 units of penicillin has been ineffective in many instances. It is currently recommended that 1,800,000 units be used in treating females, so as to provide adequate therapy and prevent lapse.

The State Department of Health will provide penicillin to private physicians for the treatment of all cases of venereal disease. It does so, however, only if the physician provides the Department with the prescribed morbidity report.

INTENSIVE CARE UNITS

The success of recovery rooms has suggested the establishment of intensive-care units in general and surgical hospitals.

The proposed units, consisting of approximately 18 beds, or fewer if the hospital is small, would be staffed by experienced trained nurses and by medical and surgical house officers round the clock.

Many lives can be saved by a team experienced in the management of the critically ill, when the proper equipment is available immediately. All good hospitals have both the requisite rooms and staff, but they are dispersed, and there are resultant delays in emergencies.

Woman's Auxiliary News

INAUGURAL ADDRESS

In my first message as your president, I shall cover only one aspect of the goals and objectives of the Auxiliary for the coming year. On future occasions, I shall discuss details of the programs that we hope to carry through. At present, I should like to say a few words on what the Medical Auxiliary has meant to me, and what it can mean to all of you.

Following the last war, my husband and I decided to enter practice in Des Moines. We were both strangers to Iowa and knew no one when we arrived in this community. Through the subsequent years, I have come to know many of you and have made many lasting friendships.

I was taken to my first county Auxiliary meeting shortly after my arrival in the city, and my hostess was a very gracious past-president who went out of her way to introduce me to all of the other doctors' wives in attendance. Everyone was very friendly and extremely kind to me, and I am sure that newcomers to Auxiliaries throughout the country are welcomed just as cordially. All of us are cut from the same pattern. As wives of doctors, we have common problems, similiar interests, and identical hopes and ideals. We are bound by this alliance to share in the idealism of the medical profession.

We know that plans are difficult to make and even more difficult to fulfill, and we know that the reality of medical practice is filled with disappointments. In particular, we know that our mode of living, our habits and our private affairs are subject to discussion and criticism. This living beneath a spotlight is probably more difficult for a doctor's wife than it is for the doctor himself. The maintenance of emotional control under difficult circumstances is necessary, but very trying. The efforts which a doctor's wife makes to protect her husband from overwork, criticism and unreasonable demands upon his time exact a toll as the years progress.

Within the framework of our Auxiliary, we can gain an understanding not only of our own problems but also of those that face others in the field of medicine. We are able to gain strength and courage through the friendships fostered in our association. The most important function of the Auxiliary is to make possible the development of these friendships and to establish a feeling of "togetherness." We must have faith in our organization, and faith in each other.

One of the objects of the Iowa Auxiliary, as stated in our constitution, is to cultivate friendly relations among physicians' families. As in other groups, one will, at times, encounter mistrust, jealousies and irritations. It is our duty as members of the Auxiliary to use our judgment and intelligence to overcome our feelings of insecurity, and the common ties of medicine should aid us in accomplishing that objective.

My contacts within the Auxiliary have brought me a rich and wholesome experience in hospitality, kindness, generosity and understanding. These friendships never cease, and they continue to multiply as the years go by. It is a privilege and an obligation to be the wife of a physician, and it is a privilege to be a member of a medical Auxiliary, an organization consisting of individuals with the common desire of aiding an honorable profession.

I should like at this time to express my personal thanks to the members of my own County Auxiliary for the help, support and assistance which they have given me for many years. I have tried to thank all of them individually, but I feel that in addition, out-of-town members should know of their many hours of work for the betterment of our organization. I was very happy to accept the orchid corsage which you presented to me, and I consider it a symbol of our friendship. To my friends throughout the state who have also been very helpful, I should like to say, "Thank you."

During my term of office, I shall always be available to discuss any question or project sympathetically and without prejudice. As your president during this next year, I feel confident that our untiring efforts will enable the Auxiliary to carry on the projects delegated to it by the Iowa State Medical Society, and that we shall be worthy of the assistance and the confidence of that Society.

Mrs. Herbert C. Merillat
President

IN MEMORIAM

The members of the Auxiliary to the Iowa State Medical Society have been saddened to learn of the death of Dr. J. H. Murphy, of Des Moines.

COUNTY AUXILIARIES

Black Hawk

Mrs. H. O. Bernbrock was the guest speaker at the meeting of the Black Hawk County Auxiliary in the home of Mrs. Vernon H. Plager, Waterloo, on April 15. Her topic was "Blossoms and Blessings," and she told of the role of the doctor's wife in the community. Mrs. R. F. Nielsen, of Cedar Falls, introduced her, and 34 members were present. Mrs. Plager was assisted by Mmes. Richard Miller, Galen C. Boller and Joe J. Beran.

On April 24 and 25, the Black Hawk Auxiliary conducted its annual handicapped crafts sale at Black's Dry Goods Store, in Waterloo. Mrs. Plager and Mrs. Boller were co-chairmen for the project.

Grundy

At the April 9 meeting of the Grundy County Auxiliary, held in the dining room of the county hospital at Grundy Center, Mrs. H. L. Mol was elected president; Mrs. E. A. Reedholm, vice-president; and Mrs. J. E. Rose, secretary-treasurer. All of them live in Grundy Center.

The May meeting was preceded by a delicious dinner at the farm home of Mrs. McAllister, the dietician at the hospital. She graciously serves dinner each month to the medical staff and the Auxiliary. At that meeting, the bride of Dr. John R. Jaquis, of Reinbeck, became a member.

Pocahontas

An Auxiliary to the Pocahontas County Medical Society was organized early in April following a luncheon at the home of Mrs. Harry L. Pitluck, in Laurens. There was 100 per cent attendance of the doctors' wives in the county.

Mrs. Pitluck was chosen as president of new organization, and Mrs. James Gannon, of Laurens, secretary-treasurer.

Polk

The Woman's Auxiliary to the Polk County Medical Society met for brunch at the Des Moines Golf and Country Club, in West Des Moines on May 8. After a short business meeting presided over by Mrs. Leo Pearlman, the members were entertained at a "sad sack" style show. The models were Mmes. Louis Goldberg, F. Eberle Thornton, Charles Gutenkauf, Don Newland, Robert Updegraff and William Morrissey. Mmes. Samuel Zoeckler, Joseph Priestley, Louis Noun and Alonzo Jenks demonstrated the Charleston. Mrs. James Dyson was commentator.

Officers elected at the meeting are: Mrs. Goldberg, president-elect; Mrs. Neil McGarvey, first vice-president; Mrs. John Matheson, second vice-president; Mrs. John Thomsen, secretary; Mrs. Dennis Walters, corresponding secretary; and Mrs. George Kern, treasurer.

Pottawattamie

On the day of the Iowa-Nebraska Medical Assembly, May 1, the Pottawattamie County Medical Auxiliary and doctors' wives from outside the county met at the home of Mrs. D. L. Moriarty, in Council Bluffs. In the evening, the ladies joined their husbands for a social hour, dinner and dancing.

THE BULLETIN

THE BULLETIN is the official voice of the National Auxiliary. It provides members with a highly valuable perspective on the relationships between county, state and national activities. It offers them rapidly readable reviews of significant events and of the problems facing medicine, written by top AMA officials and Auxiliary leaders. In addition, it contains news of local Auxiliary activities from coast to coast.

THE BULLETIN is a medium for the exchange of ideas on projects in which county Auxiliaries can engage. Each member should find the successive issues—and the back issues, too—as valuable as her favorite cookbook or her dictionary.

A wise man once said that if, from a book or from a year's subscription to a magazine, he got *just one* new idea or fresh angle on a problem, he thought his money had been well spent. THE BULLETIN is sure to do at least that much for every woman who reads it.

Order THE BULLETIN today! Send $1.00 either to the headquarters office of the Iowa Auxiliary or to the Central Office of the Woman's Auxiliary, 535 North Dearborn Street, Chicago 10. Either way, Iowa will receive credit for the subscription, and you will receive the four big issues that are published during the year.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Our Purposes and How to Accomplish Them

The President's Address

FRED STERNAGEL, M.D.

WEST DES MOINES

I AM PROUD of the Iowa State Medical Society and of the principles for which it stands. I am grateful for having had a small part in its operations over these past 20 years, and I want to thank all of you for the confidence you have had in me and for the support you have given me during my term as president.

Through these two decades, one thing has stood out and has been emphasized in every activity of our Society. It has been the fact that we have only one aim and purpose: to promote better medical care. Everything we do and every activity we sponsor is intended to contribute to the achieving of that single goal—to promote better medical care, and not to secure a personal benefit or profit for our members.

I recognize that this is an oversimplified statement of our purpose, and does not constitute an intelligible explanation of everything we undertake to do. It is like a businessman's saying that what business does is to buy goods at a low price broker's describing successful trading on the stock market as buying stocks when they are at a low for the year and selling them when they reach the year's high. Such operations are by no means so simple as those "explanations" make them seem.

There are many complications in promoting better medical care. In past years we were particularly concerned with education, licensure, legislation, insurance, public service, public relations and other related matters. Most of them still take shares of our attention, and all of them are essential to the improvement of the practice of medicine.

WE HAVE ALWAYS ENCOUNTERED OPPOSITION

The efforts of doctors to practice better medicine have always met with resistance. The way has never been easy. Overcoming superstitions and ignorance has been a constant battle, and we cannot say that it has been completely won, even in this day of enlightenment. History records many instances in which physicians have struggled to provide really good medical care when and sell them at a higher price. Or it is like a stock they needed courage to defy critics, scoffers and oppressors.

In our own State of Iowa, the efforts of qualified doctors of medicine to drive out quacks and elevate the standards of practice through the establishment of rigorous educational requirements and licensure brought public censure upon them. Because there was a shortage of physicians in those early days, people resented the doctors' efforts to expel scantily-trained individuals, on the grounds that by driving out the pretenders they were depriving some people of an opportunity to receive medical care and were providing no replacements to serve people living in isolated areas. No doubt many people suffered mentally and emotionally, though the quacks who were expelled could have done no more for them than to show an interest in their illnesses.

NOW, AS ALWAYS, WE ARE WORKING IN THE PUBLIC INTEREST

Yet, despite the suffering and hardships that certain people had to undergo as the standards of medical practice were elevated, I think everyone will agree that the qualified doctors of medicine were justified in the stand that they took. Today, we are going through a somewhat similarly difficult period for many people. Some individuals are being hurt for the greater good of all, and for the maintenance of a high standard of medical practice. I refer to the preservation of free enterprise in medical practice, despite the high cost of medical care.

The cost of medical care has increased sharply in recent years, though the price rise for such items has not been greater than the rise in the total cost of living, and the value the public receives for its medical-care dollar is much greater than it was only a few years ago. In ordinary cases, medical fees and room rent for the shorter time that patients must be hospitalized are not unduly expensive. But it is true that there are occasional instances when a person has a chronic ailment or a serious illness which requires unusually expensive treatment and prolonged care. Then, the high cost works a hardship upon the individual and on his family. When such a thing occurs, a cry goes up for some means of lifting the burden of expense from the individual and placing it upon the public through the government.

Such a "solution" would do a great deal more harm than good. These demands that government enter the medical-care picture and underwrite the costs of medical attention are similar to the pleas we hear generally for government assistance to bolster the national economy in time of recession. It is argued that because millions of people are out of work and are suffering, the government should start making jobs available by spending billions of dollars for various public works, and

should reduce taxes so as to place additional billions of dollars in circulation. No doubt, such measures would be of immediate benefit to the millions of people who are unemployed and who must suffer in consequence of their joblessness.

But on the other hand, to initiate such measures on the scale proposed would start our nation upon a spiral of inflation which would destroy the savings of millions of people—among them, many of those whom the measure was designed to benefit—and would make present pensions and incomes for retirement no longer adequate, ruin our present monetary standard and do irreparable damage to the economy of the United States for many years to come. These things are neither practical nor desirable. Therefore, the millions of people out of work, and their families, must be left to suffer temporarily for the cure for unemployment through federal subsidy is worst than the disease.

In the same way, government generosity in the field of medical care would ultimately result in a ruinous inflation that would do irreparable damage to our nation's economy, besides destroying free enterprise in medical practice.

Many people claim, with great reason and legitimate proof, that they cannot afford to pay for the medical care which they or members of their families believe they need. But the solution is not to destroy the national economy, and take away the liberty and rights of physicians to practice medicine according to the best interests of the individual patient. Nevertheless, this problem presents a challenge to the medical profession. A way must eventually be found for making medical attention available to all who actually need it. This is a problem which cannot be solved quickly or effectively by passing a new law or by calling upon the government to pay the bills. There is something fundamental behind it, just as there is something fundamental and not easily remediable behind the problem of periodically recurring unemployment.

UTOPIA HASN'T YET BEEN DISCOVERED

In countries like Russia, if we can believe what we are told, there is no unemployment and medical care is evenly distributed. But those problems have been solved by substituting slave labor for independence. People must work at the jobs to which they have been assigned, and medical care has been made available to everyone by reducing medical standards so that everyone may get something, though nobody can get the kind of care he actually needs.

Solutions of that type are typically un-American. It may be cruel to say that certain members of our population must suffer occasionally from joblessness and privation, or must be denied some of the medical care they should receive because it is more important to preserve the stability of our currency and our system of government, our democracy and our liberty. But in reality that is *not* a cruel, selfish viewpoint.

If we insist that our liberties and opportunities for independent action must take precedence over our human needs under certain circumstances, we are saying merely that the suffering which exists in America is preferable to the suffering which exists in a socialist or a communist state. For we are aware that the people of Russia and other such lands suffer, too, although their worries may not be based upon unemployment or upon not having the privilege of visiting a physician as often as one might like. Their worries arise from the fact that they don't like to be forced to work at jobs for which they have no fondness, and that they receive little or no remuneration for their efforts. Of course it may very well be that they aren't altogether satisfied with their privilege of visiting a physician as often as they like, since they receive inadequate, impersonal and ineffectual medical attention.

CONCLUSION

The Iowa State Medical Society is going to continue its fight to promote better medical care, and will do everything possible to find a solution to the problem of making adequate medical care available to everyone. We doctors know that the solutions to problems on this scale are not easy to find. Indeed, they will require years of study, experimentation and slow progress. However, we dedicate ourselves to the task, and feel that eventually we shall find a way to extend comprehensive medical care to everyone—within the framework of our democratic system and under the representative and free government of the United States.

POLIO NOT YET WHIPPED!

Nearly forty million Americans under forty years of age have had no vaccine and over forty million have not completed their series of three doses. Polio virus is still widespread. An epidemic may break out any time, any place, because the vaccine protects only those who receive it.

Some Aspects of

Sunlight in Dermatology

S. GREENHILL, M.D.

DES MOINES

THE TOPIC THAT I have chosen to discuss is an appropriate one, for this is the time of the year when manifestations of light-sensitivity are seen most frequently. People are out playing golf or gardening, and housewives are regularly hanging their laundry out of doors.

Many facts relating to the influence of light on certain skin diseases have been discovered through the years. Except for the phenomenon of sunburn, however, the possibility that sunlight might have harmful effects has been thought to belong in the realm of fantasy. Sunlight has been associated in our minds with increases in energy, with relaxation, with a sense of well-being, with exhilaration and with the acquiring of a fashionable tan. But reflection indicates that skin reacts in an effort to protect itself from a damaging agent, and its response on exposure to sunlight is a thickening of the stratum corneum and the rete layer, and subsequently an increase and a migration of pigment. The knowledge that sunlight has a capacity to produce, to precipitate or to aggravate disease has been crystallizing, and quite recently its importance in that regard has been emphasized, and information about it has been disseminated.

THE VARIOUS DIVISIONS OF SUNLIGHT

Light from the sun is a part of the spectrum of electromagnetic waves. This spectrum is continuous. There is no marked physical distinction between the various regions called ultra-violet, visible and infra-red, but chemically and physiologically, there are distinct differences among them.[1]

The biologic phenomena produced by the electromagnetic waves of sunlight, like those of radium or x-ray, are produced only by those radiations which are absorbed by a system, and produce reactions in that system. This may be direct; it may be mediated by photodynamic substances; or it may be influenced by enzymes, hormones, trace metals or catalysts.[8]

Whether the wave lengths of light reach any particular area on the earth depends upon many factors, such as the amount of dust in the atmosphere, the altitude, the latitude and the time of day and the season of the year. The last of these, governing the obliquity of the sun's rays, determines the thickness of the atmosphere to be penetrated. The intensity of the rays striking an individual depends upon all these factors, and also upon the reflection of sunlight from water, ice or snow, from brown earth or from earth covered by foliage.[5]

For orientation, let me tabulate the rays which are pertinent to this discussion:[1]

A. Short ultra-violet, 1,800A to 2,700A
B. Middle ultra-violet, from 2,700A to 3,200A
C. Long ultra-violet, from 3,200A to 3,900A
D. The visible spectrum, from 3,900A to 7,600A
E. Short infra-red, 7,600A to 15,000A
F. Long infra-red, from 15,000A to 150,000A.

The wave lengths of sunlight which come through to us extend from approximately 2,900A to 18,500A.[4] Because of the physical factors mentioned, the intensity of the rays of the sun in different parts of its spectrum is variable. For example, the intensity of the shortest ultra-violet rays is extremely small.[2] At 2,900A, it is about one millionth as great as at 3,130A, and only about one forty-millionth of the intensity of the visible spectrum. Erythema is produced by peaks at 2,500A and 2,967A, that at 2,967A being maximal.

Dr. Greenhill read this paper at the Des Moines Study Club on May 5, 1958.

Pigmentation is intensified by radiation from 3,300A to 4,400A.

Although the mechanism by which some diseases are brought about is not definitely known, there are speculations and hypotheses about the mechanism in others which seem reasonably explanatory, since these latter conform and are consistent with those of allied and related biologic phenomena where some proof has been demonstrated.

For your perspective, the following is a partial list of the diseases encompassed by this discussion. It was taken from the classification suggested by Beatrice M. Kesten and Meyer Slatkin.[3]

1. Diseases occurring in apparently normal skin
   a. Solar erythema
   b. Chronic polymorphous light dermatitis
      Eczema type
      Prurigo type
      Plaque type
      Erythematous type
   c. Solar urticaria
      Ultra-violet
      Visible
      Infra-red
   d. Photodynamic dermatoses
      Photo-chemical-sulfonamides, coal tar products
      Phyto-photodermatitis-berloque, lime oil, meadow grass, etc.
2. Diseases occurring in presumably abnormal skin
   Porphyria
   Light sensitivity associated with infection
   Light sensitivity associated with endocrine disturbances
3. Diseases occurring as "Koebner Phenomenon"
   Lupus erythematosus
   Pellagra
4. Diseases occurring in skin after prolonged exposure to sunlight
   Chronic sunburn with or without keratoses
   Degeneration of collagen and elastic tissue
   Epithelioma.

Obviously, even this abbreviated list is too large a group to discuss in the time that is available to me, so I shall confine my remarks to only a few of the items.

SOLAR ERYTHEMA

The primary irritant effect of sunlight is seen following exposure to it in certain intensities and for a sufficient duration. The severity of that effect is variable, depending upon such an obvious factor as color, and upon less well known factors such as the state of the individual's health, the activity of his hormones and enzymes, or the presence of photodynamic substances which may potentiate an irritative reaction, such as sulfanilamide, dyes and coal-tar products.

Following an adequate exposure to rays of a certain intensity, the normal reaction of the skin is erythema.[6] The reddening begins in four to six hours, it reaches a maximum in 24 to 48 hours, and pigmentation then follows. This erythema is a manifestation of vascular dilatation in the corium, since the epidermis does not possess any blood supply. The radiations involved at 2,500A and 2,967A are practically all absorbed by the cells of the epidermis and do not reach the corium. It is hypothesized that the energy absorbed from the incident rays produce a chemical change in the rete of the epidermis, elaborating a substance which, upon reaching the corium, has a vasodilating effect. This may be a normal substance[7] producing an exaggerated response because it is increased in amount, or it may be an abnormal substance which causes direct irritation.

POSSIBLY ALLERGIC REACTIONS

Then, there is a congeries of more or less distinguishable eruptions for which sunlight is seemingly the common etiological agent. These may include solar urticaria, the photodynamic dermatoses and the chronic polymorphous light dermatitides, and their mechanism of development may be based on allergic factors. There are many theories and hypotheses to explain the mechanism. One is that a quanta of energy from a beam of a definite wave length strikes the cells, causing a chemical change which produces a metabolite. This metabolite may be normal, according to Sulzberger and Baer, or it may be abnormal, according to others. The hypothesis is that all individuals develop this metabolite, but only certain ones develop disease. Perhaps only those who possess some x-factor can develop the altered reaction essential to the production of antibodies or reagins to this metabolite. What factor or factors enable an individual to develop this altered reaction is not known. We cannot tell why one person breathing specific pollen-laden air suffers from hay fever, while his companion breathes the same air with impunity. We are becoming increasingly aware of the myriad chemical reactions—for example, the amazing concatenation of enzyme processes—that take place in cellular metabolism. We can only conjecture that disturbance, blockage or alteration at any point in the chain,[8] for whatever reason (perhaps an inherited defect, a gene-determined factor), may be of significance in determining this altered skin susceptibility.

Therefore, in an individual who is susceptible, for whatever reason, the normal or abnormal metabolite acts as an allergen and gives rise to antibodies. The allergen-antibody reaction constitutes the disease. These considerations are not entirely hypothetical. Solar urticaria[10] develops in certain individuals exposed to wave lengths

of 3,760A. In these, the presence of antibodies has been demonstrated regularly by passive transfer test. And yet, in solar urticaria in other individuals following exposure to wave lengths of 4,000A to 5,000A, though this is morphologically identical to that produced by wave lengths of 3,700A, the passive transfer test can be demonstrated only occasionally.[7] Although certain patients react only to certain specific wave lengths, others, as in the case reported by Porter, are sensitive to wave lengths extending from the ultraviolet into the infra-red.

Our current inability to demonstrate antibodies, therefore, need not obfuscate our thinking as regards the probable role of allergy in certain other dermatoses whose course and behavior nevertheless are similar to those of which the allergic mechanism has been demonstrated. Allergic mechanisms are of various types. Dermatologically, they are classifiable in three main groups:[11] the contact type, the urticarial type and the tuberculin type. One allergen may participate in all three of these ways, and thereby this one allergen may cause varied patterns of eruption, depending upon the allergic reaction elicited in the individual upon whom it is acting. On the other hand, different allergens may participate in only one way, and thus we have different allergens producing the same pattern of eruption.

What I have said may help to explain the varied patterns in polymorphic light dermatitis. The disease becomes an expression of the way in which an individual can react to an allergen, or it is the expression of disease dependent upon the "soil" upon which it is acting.

Epstein[13] demonstrated the allergic mechanism of a photodynamic dermatosis following the ingestion of sulfanilamide.

The variety of allergens produced might be explained by another physical mechanism.[4] A molecule, when struck by a radiation of a specific wave length, may deflect the ray rather than absorb it. The deflected ray—now of longer wave length and lesser energy—is capable of being absorbed by a different type of molecule, which may produce a different chemical reaction. In this way, light may act upon different substances and produce varied antigens.

PORPHYRIA

The next dermatoses influenced by sunlight are concerned with porphyrins.[14] Porphyrins are important in the cellular activity of all the cells of the body. They are light sensitizers, yet in only certain cases are they light-sensitive.

In this category, we do not include porphyrinuria.[15] In porphyrinuria, there is an increased production and excretion of normal porphyrins. Coproporphyrin is excreted in amounts of 100 to 300 micrograms daily. Porphyrinuria is found in febrile diseases, in hepatitis, anemias, heavy-metal poisoning and alcoholism. Patients with these diseases are not light-sensitive.

In this category, we do include porphyria.[16] This is a disease consequent to an inborn error of pigment metabolism. In porphyria, there is an increased production and excretion of abnormal porphyrins. Uroporphyrin is not normally present in the urine. Porphyria has been considered a rare metabolic disease. As knowledge about it has increased, however, it has appeared to be of much commoner occurrence than had been supposed. It is a familial disease.[19] Through studies of the close relatives of patients with active cases, it has been discovered that family members who had previously not been thought affected have the latent disease.[17] It also is capable of masquerading in the guise of many other diseases, and thus its true nature is often obscured.[18]

There are two forms: porphyria erythropoietica, and porphyria hepatica. In porphyria erythropoietica, the bone marrow contains large amounts of porphyrin. This includes the rare congenital photosensitive type.

In porphyria hepatica, the liver is the principal site of abnormal porphyr formation. This includes the acute intermittent form, porphyria cutanea tarda,[20] and the mixed form. The congenital, porphyria cutanea tarda, and some cases of the mixed form show photosensitivity. In these photosensitive cases, uroporphyrin is present, but porphobilinogen is not. In the others—the acute intermittent form and some of the mixed—porphobilinogen is present. Porphobilinogen is not a porphyrin, and yet its presence here establishes the diagnosis of porphyria. To repeat, the finding of coproporphyrinuria does not make a diagnosis of porphyria. Only the presence of porphobilinogen or uroporphyrin does that.

Porphyria cutanea tarda is the form most often seen by the dermatologist. The lesions do not develop until adult life is reached, and the disease takes its name from that fact.[21] Cutaneous lesions develop not only after exposure to sunlight, but also after trauma and after exposure to heat. Blisters develop, heal, and leave scars. The skin may become toughened, as in scleroderma. It darkens, and it may develop a peculiar violaceous hue. Ulcerative lesions redolent of dermatitis factitia occur. The conjunctivae may be suffused, giving the patient a bleary, dissipated look. Some develop jaundice; some hypertrichosis. The mechanism of porphyria may be related to an inherited enzymatic block. The manner in which the latent disease becomes active is not known, but there are various precipitating factors: barbiturates, sulfonamides, heavy metals, alcohol, exposure to oil paints and solvents, and pregnancy.

LUPUS ERYTHEMATOSUS

Lupus erythematosus is another disease in which light plays an important precipitating or aggra-

vating, if not an etiologic, role.[22,30] Its symptomatology is sufficiently varied so that it is now considered the usurper of syphilis as the "great impersonator."

Discoid lupus erythematosus had been thought to be a disease entirely confined to the skin. Patients' histories frequently indicate that sunlight plays a distinctly aggravating role, and sometimes a precipitating one. This form had been considered by many to be an entity distinctly separate from systemic lupus erythematosus. More recently, however, observers have been recounting many cases which started as discoid and eventuated as systemic erythematosus, or began as systemic lupus erythematosus and assumed the morphologic aspects of the discoid eruption.[32]

Very interesting in this connection is the study by Cahn, Levy, Shaffer and Beerman,[23] which led to the theory that a possible relationship exists between lupus erythematosus and other light eruptions. Their observations have enabled them to divide their patients into three groups: (1) those who develop eruptions at the site of exposure to sunlight and show no laboratory evidence of systemic abnormality; (2) those with recurrent seasonal transient eruptions which clear slowly after sun-protective measures and who show some abnormal laboratory findings—a slightly elevated sedimentation rate, moderate anemia, leukopenia and a tendency toward reversal of the A/G ratio; and (3) those with eruptions of lupus erythematosus on exposed areas, which are chronic and persistent, which heal with atrophy and which are accompanied by abnormal laboratory findings and a reversal of the A/G ratio. Finally, all showed histopathological findings grading from those suggestive of lupus erythematosus to those found in subacute and chronic lupus erythematosus. These observations led Cahn, Levy, Shaffer and Beerman to hypothesize that certain reactions to light may at times represent stages in the transition from subclinical to manifestly clinical lupus erythematosus.

Another most interesting study related to lupus erythematosus has been that of Moore and Lutz,[24] on individuals who were found to show the phenomenon of biologic false-positive serology. Of these patients, a considerable number develop a disease which is episodic, characterized by sporadic periods of illness, interspersed with periods during which the patient may be surprisingly well. It often eventuates into systemic lupus erythematosus. The pattern of the symptoms—when they do occur—is that which is seen in collagen, vascular disease and systemic lupus erythematosus. It includes arthritis[33] and arthralgia, fever, splenomegaly, serositis, purpura, psychosis, Raynaud's, subcutaneous nodules, hematuria, hypersensitivity to drugs, photosensitivity and the development of the lupus erythematosus phenomenon. There are changes in the protein metabolism, the laboratory evidence of these changes preceding the disease by many years. These laboratory evidences are: the BFP reaction, increased sedimentation rate, abnormality of the protein flocculation in the cephalin flocculation test, thymol turbidity, increase in serum globulin, alteration in the electrophoretic pattern of the serum, and the development of the lupus erythematosus phenomenon.

The course, unlike that ordinarily described in textbooks, may be long and benign. In systemic lupus erythematosus, therefore, there may be slow progressors and rapid progressors, and the mechanism which produces the BFP may be a factor in promoting the slow progress and extreme chronicity. These patients may be victims of lupus erythematosus from the very beginning, although the specific diagnosis cannot be made early. So this disease, too, may be much commoner than has been thought. Considering this matter, one may find it prudent, in the case of a patient found to have a biologic false-positive serology, to counsel against incautious exposure to the sun, even though there may be no overt signs of lupus erythematosus.

POSSIBLY PRECANCEROUS LESIONS

Another important way in which the sun may be harmful is in its role in chronic actinic dermatitis[28] and skin cancer.[25] People these days are much perturbed by atomic fall-out. They resist indicated therapeutic and diagnostic exposure to roentgen rays, but they are quite oblivious to any sinister aspect of solar radiation. Prolonged exposure to sunlight hastens the process of aging of the skin and the physical signs which accompany it—the atrophy, the dyspigmentation, the wrinkling. Repeated irritation by ultra-violet rays for a sufficient time produces not only inflammatory but also chronic degenerative lesions, and those lesions may be precancerous.

Like x-ray, sunlight gives rise to pigmentations, telangiectases and keratoses, though they are less marked and of slower evolution. Cancer-inducing radiations are shorter than 3,300A. Since sunlight reaching us does not extend to wave lengths much shorter than 2,900A, the range of cancer irradiation is less than 0.2 per cent of the total maximum sunlight. Experimentally in mice, malignant growths may be produced by many unrelated substances. A most potent carcinogenic agent is the hydrocarbon 3-methyl cholanthrene. This is synthesized from desoxycholic acid, a normal constituent of human bile. It may also be synthesized from cholic acid and derivatives of cholesterol. Pro-vitamin D is converted into vitamin D by sunlight. Pro-vitamin D is closely related to cholesterol. If these substances in the body are related and if the sun has a direct or an indirect influence upon them, it does not require too great a stretch of the imagination to see a possibility that minor variations in irradiation may cause

an altered or abnormal metabolism and may cause a degradation of the sterols into a substance with carcinogenic potentiality—probably a substance with a structure not far removed from that of a carcinogenic hydrocarbon like 3-methyl cholanthrene.[26] This has not been proved, but the thought has been entertained by many investigators.

PROPHYLACTIC MEASURES

The prophylactic avoidance of sunlight by those patients[29] for whom sunlight may be harmful will depend upon their understanding the problem. The physician's being aware of it is not enough. And furthermore, each patient must have an understanding of it as it relates to himself or herself. There are individuals, for example, who are sensitive to light only at certain times—during periods of acute infection, or during menses.[12] Certain diabetics are sensitive when their disease is not controlled.

For those who have no abnormal intolerance to sunlight, trouble can be avoided through exposure to gradually increasing amounts of radiation.

Those who have an abnormal susceptibility may sometimes increase their tolerance in this way also. Still others must observe greater caution, avoiding sunlight entirely. This can be accomplished by wearing protective clothing such as large hats, long sleeves and gloves. Such people must be aware of and must avoid indirect radiation such as reflections from snow and water. Light-screening agents are very useful. There are light-scattering agents such as titanium, zinc oxide and talc, and light-absorbing agents such as tannic acid, salol and sodium para-amino-benzoate. Commercial preparations include these or other ingredients in all sorts of combinations. They have varying results. Skolex cream absorbs light between 2,500A and 3,200A; A-film cream absorbs it between 2,900A and 3,750A.[3]

Hormones have been helpful for some patients; vitamins B and C have seemed to benefit others. It has been demonstrated that some antihistamines increase tolerance; others induce photosensitivity. Antimalarials such as Atabrine and chloroquine[31] not only increase tolerance in those with light-sensitivity dermatoses; in lupus erythematosus, they have a salutary effect not related to this aspect of their activity.

CONCLUSION

This study confronts us with the amazing complex of activity within each cell. We find that there are many unknown factors which account for the differences in the behavior of the cells of different individuals after they have been exposed to the same or similar agents. What may be a minor aberration in cell activity can produce extensive disease.

The photodynamic action of the sun in certain individuals may be a phototoxic or irritant phenomenon. In others, it may be a photoallergic phenomenon producing its effects through allergic mechanisms that have been demonstrated in some categories of disease and are to be inferred in others.

We find that certain individuals have the capacity to react only to specific and limited wave lengths of the spectrum, but others react to wave lengths extending from the ultra-violet through the visible and into the infra-red.

The mechanism of action of sunlight in porphyria is not altogether clear. Some individuals with pathologic porphyrins are photosensitive. Others with seemingly identical porphyrins are not photosensitive.

The mechanism by which sunlight produces damage in lupus erythematosus is not understood. This disease may be much more widespread than has been thought, manifesting itself in guises heretofore unrecognized as parts of the disease. Caution is suggested, therefore, in the use of ultraviolet and in exposure to the sun of certain individuals and patients for whom caution had not previously been considered.

Sunlight is not only a tonic, healthful, exhilarating and tanning medium. It has a potential for initiating chemical and biologic phenomena which can be very damaging.

REFERENCES

1. AMA Handbook of Physical Medicine, 1945, p. 247.
2. *Ibid.*, p. 255.
3. Kesten, B. M., and Slatkin, M.: Diseases related to light sensitivity. AMA Arch. Dermat. & Syph., **67**:284-301, (Mar.) 1953.
4. Allington, H.: Eczematous and polymorphous hypersensitivity to light. Am. Practitioner, **7**:1316-1325, (Aug.) 1956.
5. Kesten, B. M.: Effects of sunlight on skin. J.A.M.A., **161**:1565-1567, (Aug. 18) 1956.
6. Levy, E. J., Cahn, M. M., and Shaffer, B.: Polymorphous light eruptions. J. Invest. Dermat., **28**:147-153, (Feb.) 1957.
7. Baer, R. L.: "The Present Status of Differentiation of Allergic and Non-Allergic Hypersensitivity to Physical Agents." In: Baer, R. L., ed.: Allergic Dermatoses. New York and Philadelphia, New York University Press and J. B. Lippincott Co., 1956. pp. 1 ff.
8. Nishimura, N., Yasui, M., Okamoto, H., Kanazawa, M., Kotake, H., and Shibata, Y.: Intermediary metabolism of phenylalanine and tyrosine in diffuse collagen diseases. AMA Arch. Dermat., **77**:255-262, (Mar) 1958.
9. Morgan, R. J., Shackleford, P. O., and Lamb, J. H.: Unusual forms of solar dermatitis. AMA Arch. Dermat. & Syph., **67**:369-379, (Apr.) 1953.
10. Porter, A. D.: Urticaria solaris. Brit. J. Dermat., **66**:-417-428, (Dec.) 1954.
11. Sulzberger, Marion B.: Dermatologic Allergy: An Introduction in the Form of a Series of Lectures. Springfield, Illinois, Charles C Thomas, 1940.
12. Lancaster, A. H.: Causes and treatment of photosensitization dermatitis. South. M. J. **50**:770-775, (June) 1957.
13. Epstein, S.: Studies in abnormal human sensitivity to light; prurigo aestivalis, eczema solare and urticaria photogenica; report of 17 cases and review of literature. J. Invest. Dermat., **5**: 187-195, (Aug.) 1942.
14. Treanor, W. J., and Rupe, C. E.: Porphyria, an "enzyme lesion." Henry Ford Hosp. Med. Bull., **5**:162-170, (Sept.) 1957.
15. Zeligman, I.: Porphyrins, porphyrinuria and porphyria. AMA Arch. Dermat., **74**:33-39, (July) 1956.
16. Kehoe, E. L., Rudensky, H., and Reynolds, W. W.: Acute intermittent porphyria in identical twins. Ann. Int. Med., **47**:131-140, (July) 1957.
17. Waldenstrom, J.: Porphyrias as inborn error of metabolism. Am. J. Med., **22**:758-773, (May) 1957.
18. Greenberg, M. W.: Porphyria. N. Y. State J. Med., **57**: 1078-1082, (Mar. 15) 1957.
19. Dean, G., and Barnes, H. D.: Inheritance of porphyria. Brit. M. J., **2**: 89-94, (July 9) 1955.
20. Perry, H. O., and Brunsting, L. A.: Porphyria cutanea tarda, simulating dermatitis factitia; report of case. AMA Arch. Dermat., **74**:198-201, (Aug.) 1956.

21. Goldstein, N. T., Martin, W. J., Brunsting, L. A. and Kirby, T. J.: Blindness of cerebral origin in porphyria; report of case. Proc. Staff Meet. Mayo Clinic, **32**:82-87, (Feb. 20) 1957.
22. Marten, R. H., and Blackburn, E. K.: Lupus erythematosus. AMA Arch. Dermat., **73**:1-14, (Jan.) 1956.
23. Cahn, M. M., Levy, E. J., Shaffer, B., and Beerman, H.: Lupus erythematosus and polymorphous light eruptions; experimental study on their possible relationship. J. Invest. Derm. **21**:375-396, (Dec.) 1953.
24. Moore, J. E., and Lutz, W. B.: Natural history of systematic lupus erythematosus: approach to its study through chronic biologic false positive reaction. J. Chron. Dis., **1**:297-316, (Mar.) 1955.
25. Cook, J. W.: Chemical carcinogens and their significance. Lancet, **1**:333-335, (Feb. 16) 1957.
26. Williams, M. G.: Response of human epidermis to application of carcinogenic hydrocarbons. J. Invest. Dermat., **30**:13-20, (Jan.) 1958.
27. Blum, H. F.: Sunlight as environmental factor in cancer of skin. Mil. Med., **117**:202-208, (Sept.) 1955.
28. Smith, L. M.: Chronic actinic dermatitis: occupational hazard of Southwest. Texas State J. Med., **33**:644-647, (Jan.) 1938.
29. Cabaniss, W. H., Jr.: Abnormal sensitivity of skin to sunlight. Virginia Med. J., **83**:327-331, (Aug.) 1956.
30. Shulman, L. E., and Harvey, A. McG.: "Systematic Lupus Erythematosus." In: Disease a Month. Chicago, The Year Book Publishers, Inc., May, 1956.
31. Knox, J. M., Lamb, J. H., Shelmire, B., and Morgan, R. J.: Light sensitive eruptions treated with Atabrine and chloroquine. J. Invest. Dermat. **22**:11-16, (Jan.) 1954.
32. Haserick, J. R.: Modern concepts of systemic lupus erythematosus; review of 126 cases. J. Chron. Dis., **1**:317-334, (Mar.) 1955.
33. Parr, L. J. A., Shipton, E. A., Benjamin, P., and White, P. H. H.: L. E. phenomenon in rheumatoid arthritis. M. J. Australia **1**: 900-905, (June 29) 1957.

Two Years of Corneal Transplants

at the S. U. I. Hospitals

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THIS PAPER IS A REPORT on the transplants done at University Hospitals, Iowa City, from the inception of the Iowa Lions Club Eye Bank program until December, 1957. In December, 1955, the first eye was received through the Eye Bank, and ever since then corneal materials have been received conveniently and frequently by that means, in addition to the eyes secured from autopsies at the University and the Iowa City Veterans Administration Hospitals.

A discussion of the management of a typical case of corneal transplant as done at University Hospitals must necessarily be couched in general terms, and minor variations must be overlooked. All of the corneal transplants done here during the period of time covered by this report were done with fresh grafts from human corneas. The materials were used as soon after enucleation as it was possible to have the patient come to the hospital, to prepare the patient for surgery and to have the requisite operative staff available. There are authorities who advocate letting some time elapse between enucleation and transplantation, in the belief that the allergic response of the cornea can thus be diminished. However, this concept is not universally accepted, and in all of the cases done at University Hospitals no attempt was made to let the tissue "age."

In some cases, preoperative antibiotics were used topically in the recipient eye, and in others, no antibiotics were used. For instance, when the surgery was done almost immediately after the patient's admission to the hospital, none were administered. Generous and frequent instillations of miotics are used to reduce the size of the pupil and protect the lens, and analgesics and sedatives are used in much the same way as in any other type of intraocular surgery. A topical anesthetic is instilled, and the O'Brien type of akinesia and retrobulbar injection are given. A round corneal trephine having a diameter of six, seven or eight millimeters is used, and the recipient cornea is first marked with the trephine set so that the mark is superficial. Next, 6-0 silk sutures are placed near the limbus in a cross that is usually horizontal, and others are placed in a vertical cross. Thus, eight sutures cross the cornea. They are lifted aside to allow removal of the button.

Next, the donor button of corneal tissue is made ready, and a few drops of penicillin solution are placed on it. We remove the patient's diseased corneal button by first entering the anterior chamber with the trephine, and then completing the section with curved scissors. The donor cornea is then placed in position, and several direct sutures of 6-0 silk are usually used. The cross sutures which had previously been laid aside are then brought over the surface of the donor button and tied either before or after the placement of the direct sutures. Pilocarpine is instilled, cotton eye patches are put over both eyes, and a metal shield is used to cover the eye that has been operated upon.

Postoperatively, pilocarpine drops are used until the anterior chamber is seen to be reformed, and then mydriatics are used. Generally, the penetrating transplant cases have binocular dressings for five days. On about the sixth day, the dressing is removed from the unoperated eye, and the patient is gradually ambulated, depending upon the appearance of the graft. The sutures are removed sometime between the fourteenth and the twenty-first day. Topical antibiotics may or may not be used. The lamellar transplants are handled much less conservatively than are the penetrating, of course.

The complications in this group of patients are treated in a rather conventional manner. Sometimes a pressure dressing has been used in treating a graft that bulged in one area. There have been instances in which a bulging graft had to be re-

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TABLE 1

Patient	Age	Months of Follow-up	Type and Size of Transplant	Condition	Pre-Op. Vision	Post-Op. Vision	Graft Clarity	Comment
RW	41	4	Penet.	Corneal leukoma	**HM	nil	Completely opaque	Painful and glaucomatous. Enucleated
FG	32	7	*Penet.	Perforated corneal ulcer; recurrent herpes	HM	HM	Opaque	Cat. ext. 5 mos. later. Secondary glaucoma
EP	35	1	*Penet. 7 mm.	Chronic corneal ulcer	6/60	—	Clear	Insufficient follow-up
HC	66	22	Penet. 6 mm.	Corneal dystrophy	HM	HM	Completely opaque	Loss of vitreous
GL	67	14	Penet.	Fuchs' dystrophy with perforation	†LP	? LP	Opaque quadrate globe	? Cortisone contributed to perforation
CL	55	4½	Penet. 7 mm.	Leukoma	LP	6/60	Edematous	— — — — —
JR	50	OS 18	Penet.	? Old chicken pox of cornea	1/60	‡CF 1′	Opaque	Iris prolapse. Eye became painful with much tearing; graft repeated
		OS 2	Penet. 7 mm.	Scarred and vascularized corneal graft	HM	HM	Graft opaque but no longer has pain	Second graft
IT	60	17	Penet. 8 mm.	Keratoconus	HM	HM	Vascularized and opaque	Iris adherent to wound. Four years previously had keratectomy
LH	55	10	Penet.	Trachomatous scar	1/60	HM	Completely opaque	Iris prolapse. Secondary glaucoma; cyclodialysis done
IN	55	10	Penet. 7 mm.	Lipid keratitis	1/60	HM	Vascularized and opaque	— — — — —
PR	23	17	Penet. 8 mm.	Chemical burn of cornea	1/60	1/60	Vascularized and opaque	Iris prolapse repaired
MW	59	9	Penet. 8 mm.	Keratitis with scarring (? acne rosacea)	6/30	4/60	Vascularized and edematous	Partial keratectomy one month preceding
MW	62	19	Penet.	Fuchs' dystrophy	HM	HM	Vascularized and opaque	Third penetrating transplant
AL	75	12	Penet. 6 mm.	Fuchs' dystrophy	?	6/21 – 1	Edema of graft partly controlled with NaCl ointment	Aphakic eye; vitreous loss during keratoplasty
ER	49	15	*Penet.	Bullous keratopathy	?	?	Thickened, vascularized and edematous graft	Lamellar transplant 2 years earlier.
CN	19	OD 3½	Penet.	Keratoconus	CF 2′	6/9	Clear	Post-op. iridocyclitis Corneal bulge improved with pressure
	19	OS 4	Penet. 7 mm.	Keratoconus	CF 2′	6/9	Clear	Iris inadvertently cut during surgery
LK		14	Penet. 8 mm.	Keratoconus	LP	6/9 – 1	— — — — —	Anterior chamber lost when sutures removed
CS	73	19	Penet. 6 mm.	Meta-herpetic keratitis	LP	HM	Vascularized and opaque	Penetrating graft 5 mos. previously. Other eye enuc. 4 years ago for same disease
DS	58	17	*Penet. 6 mm.	Descemetocoele; old leutic interstitial keratitis	1/60	1/60	Fairly clear graft	Second graft; has cataract now
JT	26	1½	Penet. 7 mm.	Keratoconus	HM	6/60 – 1	Unknown (clear graft at 1½ mos.)	Iris was adherent to cornea and corneal edema was present. Follow-up in Calif. at 10 wks.; iris adhesion severed and then edema and vascularization decreased
JG	72	11	*Penet. 7 mm.	Perforated cornea from ulcer	HM	LP	Opaque and vascularized	Cornea opaque and distorted at time of surgery
DM	42	1		Keratoconus	HM	—	— — — — —	Insuff. follow-up
AM	28	OD 7	Penet. 6 mm.	Keratoconus	1/60	1/60	Corneal bullae; pupillary membrane	OD: severe surg. complications. Iris dilated. Lens extraction (extracapsular) during procedure. Later repair of iris prolapse
	28	OS 7	Penet. 6 mm.	Keratoconus	1/60	6/9 – 1	Clear	OS: vessels growing toward graft but not into it at 7 months
EC	36	OD 9½	Penet. 7 mm.	Keratoconus	4/60	6/12+	Very clear	— — — — —
		OS 6	Penet. 7 mm.	Keratoconus	6/60	6/21	Nebulae in graft	— — — — —
RW	42	8	Penet.	Dense corneal scar from old ulcer	HM	—	Clear graft above; opaque below	Cataract extraction 8 months later
ET	64	OD 12	Penet. 7 mm.	Old phlyctenular keratitis	HM	6/21	Clear	Cataract extraction 6 mos. later with loss of fluid vitreous. Has senile macular degeneration

* = Therapeutic graft.
** HM = Capable of seeing hand movements.
† LP = Capable of seeing light.
†† OS = Left eye
‡ CF = Capable of counting fingers.
‡‡ OD = Right eye

TABLE 1 (*Continued*)

Patient	*Age*		*Months of Follow-up*	*Type and Size of Transplant*	*Condition*	*Pre-Op. Vision*	*Post-Op. Vision*	*Graft Clarity*	*Comment*
		OS	2	Penet. 2 mm.	Same	HM	HM	Edema of graft	Graft clear for 3 weeks, then began to be cloudy. Has dense cataract which was present preoperatively
VD	34		1	Penet. 8 mm.	Interstitial keratitis	6/60	6/92	Clear	Secondary glaucoma treated with cyclodialysis one month later
KR	75		8	Penet. 6 mm.	Keratoconus	less than 6/60	6/60	Vascularization inferiorally	Cataract extraction 3 months later with loss of formed vitreous. Myopic degeneration
GF	59		6	*Lamellar 7 mm. x .3 mm.	Band keratopathy	HM	HM	— — — — —	? Epithelial downgrowth present from previous cataract extraction
ON	70		3	Penet. 6 mm.	Old TEC interstitial keratitis	6/30 + 1	6/21	Clear; folds in Descemet's	Nuclear sclerosis
WM	69		2	*Lamellar 6 mm. x .4 mm.	Recurrent corneal ulcers	LP	LP	Opaque	Did not return for further follow-up
BL	51		5	Penet. 6 mm.	Keratoconus	HM	6/15	Clear	Postoperative iritis for several weeks
RG	27		6	Lamellar 6 mm.	Advanced scarring from ? Steven-Johnson disease	—	—	Entirely opaque and vascularized	Descemet's membrane perforated during surgery and anterior chamber lost
EM	79		5	Penet. 6 mm.	Familial corneal dystrophy (Groenouw's I)	1/60	6/30 + 1	Clear	Cataract extraction 5 months later
LW	64		9	*Lamellar 8 mm.	Recurrent herpetic keratitis	HM	6/6	Very Clear	Photophobia and pain relieved. (Had red, sore eye for 2 months preceding transplant.)
PK	32		4	*Penet. 7 mm.	Perf. corneal ulcer	?	?	Edematous	On sodium chloride and hydrocortisone ointment
HD	33		5	Penet. 6 mm.	Groenouw's dystrophy	4/60	6/6	Clear	Iris adherent to cornea—swept free through cyclodialysis. Wears contact lens. Without contact, vision is 6/15 with a correction of −4.00 +7.50 axis 80
VR	47	OD	5	Penet. 6 mm.	Trachoma	4/60	?	Graft became infected	Regrafted one month later
		OD	5	Penet. 7 mm.	Opaque graft	?	HM	Opaque	Second keratoplasty. Iris prolapse on 4th day
DP			3½	Penet. 6 mm.	Keratoconus	?	6/21 + 3	Slightly cloudy	Bulges temporallv. Refraction: −1.00 −8.00 axis 30
LO	53		1	Penet. 8 mm.	Fuchs' dystrophy	HM	?	— — — — —	Secondary glaucoma; cyclodialysis done third week
CJ	78		3½	Penet. 7 mm.	Fuchs' dystrophy	6/30	nil	Opaque and vascularized	Loss of vitreous in aphakic eye
EO	47		2	*Penet.	Ruptured descemetocele	HM	HM	Cloudy	Enucleation would have been necessary if transplant not possible
BM	63		2½	Penet.	Keratoconus	CF	6/21 (with pinhole)	Cornea cloudy with many bullae	— — — — —
JM	53		2½	Penet. 8 mm.	Keratoconus	6/30 with contact lens	—	Epithelial bullae; fairly clear graft	Leaking anterior chamber one month postoperative. Graft re-sutured and cyclodialysis done.
IB	55		2½	Penet. 6 mm.	Lattice-type familial dystrophy	CF 1′	CF 3′	Diffuse edema with bullae	NaCl ointment diminishes edema
JH	26		1	Penet. 6 mm.	Interstitial keratitis	6/60 + 1	—	Fairly clear at one month	— — — — —
GH	7		1	Lamellar 8 x 0.6 mm.	*Metaherpetic keratitis	CF 1′	HM	Vascularized	Recurrent herpes since age 3
WS	44		1	Penet. 7 mm.	Severe leukoma from lime burn	LP	CF 2′	Diffuse edema although graft is relatively clear	Lime burn occurred at age 1½
MH	40		1½	*Lamellar 7 x 0.5 mm.	Acute corneal ulcer with descemetocele	HM	CF 2′	Fairly clear graft	— — — — —
HQ	8		1	Lamellar 8 x 0.4 mm.	Severe leukoma of unknown cause	LP	LP	Opaque graft	— — — — —

sutured at the area of protrusion. Occasionally, a small bulge has diminished several weeks after its first appearance. Iridocyclitis is not uncommon following keratoplasty, and treatment may consist of intravenous typhoid or corticosteroids, the latter administered either topically or systemically.

Surgical complications are handled as follows. If the lens capsule is ruptured during operation, the capsule and as much as possible of the lens material are removed. Vitreous loss demands careful approximation of the wound edges and excision of prolapsed vitreous. If the anterior chamber is lost at the time a direct suture is removed, then a binocular dressing is applied and the patient is placed on bedrest. Postoperatively, an iris prolapse can be repaired by excising the iris through the corneal surface and placing a suture through the donor and the recipient corneas at the graft margin. An adhesion of iris to the cornea may cause cloudiness or iridocyclitis postoperatively, and this type of anterior synechia is usually separated by passing a cyclodialysis spatula through a scleral incision and sweeping the adhesion from the cornea. In one case which had been repaired elsewhere, the sectioning of the synechia was done with a knife. Glaucoma occasionally develops postoperatively, and this complication has been treated by means of a cyclodialysis.

Among the late postoperative complications that occur is corneal edema, and it is treated with sodium chloride ointment in most instances, but occasionally with topical or systemic corticosteroid preparations. Opaqueness of the graft may develop in a patient who had had a good preoperative prognosis for a clear graft, and in that case another corneal graft may be performed. If any treatment is used for vascularization of the graft, it consists of corticosteroids. Postoperative astigmatism is quite variable, and if it is severe, a contact lens can be tried. In one of our cases we achieved quite remarkable improvement through the use of a contact lens.

OUR SERIES OF CASES

A total of 56 transplants were done in 50 patients during the two years covered by this study. The cases are listed in an approximately chronological order in Table 1, with no selection of cases.

In eight of the eyes, corneal grafts had been done more than once, or some other type of corneal surgery, such as a keratectomy, had been performed. One eye had to be enucleated because of an uncontrollable glaucoma. Preoperatively, it had had a densely scarred and vascularized cornea which had been painful for some time, but the patient wanted a corneal graft.

Basically, there are two types of graft—the optical and the therapeutic. There is a difference of opinion about what constitutes a successful optical graft. From one point of view, the anatomical clarity of the graft is the significant consideration, even though lenticular opacities, vitreous haze, chorioretinal changes, glaucoma or amblyopia may have prevented an improvement in vision. From the other point of view, the success of the graft is judged on the basis of the postoperative vision, without regard to partial opacification, tilt or irregularity of the graft.

Table 2 shows the results of the optical grafts in our series in terms of postoperative visual acuity.

TABLE 2

Results	*Number of Cases*
Marked improvement	9
Significantly better	6
Significantly worse	4
No significant change	18
Insufficient data or follow-up	7
Total Optical Grafts	44
Therapeutic Grafts	12
Total Grafts	56

The other type of graft is the therapeutic, and in our series of them, five were of the lamellar type, and seven were of the penetrating type. This is the type of graft that is used for the treatment of progressive corneal disease, and it seems especially useful in the situation where the eye is about to perforate from a corneal ulcer. Grafts of this type are not done to improve the visual acuity, but our lamellar grafts produced improvement of vision from an ability to discern no more than hand movements to a vision of 6/60 in one instance, and from hand movements to 6/6-1 in another. Still another lamellar graft (RG) was done as a preliminary to a possible optical graft, and the results were influential in our decision not to attempt a penetrating graft.

The best results obtained in this series were with the keratoconus cases, and an occasional good result was obtained in other cases. For example, the results were good in two cases of familial dystrophy, in a case of phlyctenular keratitis and in two cases of interstitial keratitis. It must be realized that many of the cases in this series were operated upon when the Eye Bank first allowed a ready supply of donor material, and were rather hopeless from the outset. Several of the eyes which received corneal transplants had poor, or at least unimproved, vision postoperatively, but it must be remembered that this group contained eyes that would have been enucleated if corneal transplantation had not been possible. Thus, some intact globes were salvaged.

Keratoplasty at the present stage of its development cannot be considered an exceptionally successful procedure—i.e., it does not produce a high proportion of perfect results—but if compared with the results that others have reported, one must conclude that ours have been quite satisfactory.

Psittacosis

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PSITTACOSIS, as we now call it, was first described as a clinical entity in Europe in 1875. The disease was then known as pneumotyphus, and a number of epidemics of it occurred there in the late nineteenth century. The name *psittacosis* was first proposed in 1895, following a study of the 1892 epidemic in Paris, which was associated with the importation of 500 parrots from Argentina. In that particular epidemic, 51 persons were affected, and 16 died. However, it was not until 1930 that Levinthal demonstrated the elementary bodies of the psittacosis virus in the endothelial cells of inoculated animals. His findings were confirmed by a number of other investigators during the same period, and thus the virus etiology became firmly established.

In the United States in 1904, a family outbreak was reported following the purchase of a parrot. An outbreak occurred in Wilkes-Barre, Pennsylvania, in 1917, and it was traced to a department store that had purchased a shipment of birds, several of which were ill. The pandemic[1] of psittacosis which occurred in 1929 and 1930 led to a revival of interest in the disease and the discovery of its etiology, as has already been noted. During this period, it is estimated that there were 170 cases in the United States, with 33 deaths. Most of the cases appeared in people who had been exposed to psittacine birds. The United States and many other countries banned their importation at that time, and in 1932, following the discovery that psittacosis was also prevalent in domestic parrot-breeding establishments, the United States Public Health Service decreed that interstate shipments of the birds could be made only if a state health authority certified that they were free from disease. Thereafter, the incidence of the disease declined to a low level, but in 1947 the certification plan was declared unworkable, and regulations were enacted which virtually banned interstate shipments of psittacine birds. From 1947 to 1951, the average number of cases of psittacosis in the United States was about 30 per year.[2]

In late 1951, the restrictions on interstate shipments of psittacine birds were removed, and the parakeet, since that time, has enjoyed increasing popularity as a household pet. It is estimated that the parakeet population of the United States has increased 161 per cent in the past two years. Apparently for these reasons, the incidence of the disease in Iowa and in the United States has increased sharply in the past five years. Prior to 1953, only one case was reported in this state—in 1944.[3] There were no cases in Iowa during 1952, though the total incidence in the United States rose to 135 in that year. In 1953 and 1954, there were 11 Iowa cases each year, and throughout the country there were 169 and 563 cases, respectively. In 1955 and 1956, the incidence in Iowa was nine and seven cases, and the incidence for the United States was 333 and 508 cases, respectively.[4] One Iowa case terminated in the death of a 72-year-old woman. Prior to her hospitalization, she had kept 14 parakeets in her home.[5]

Because of the increasing incidence of psittacosis in Iowa, physicians here as well as elsewhere must consider it in the differential diagnosis of all cases of (1) fever of undetermined origin and (2) pulmonary infiltration of undetermined etiology.

VIROLOGY

The infective agent of psittacosis in birds and man belongs to the psittacosis-lymphogranuloma group of so-called large viruses, which generally speaking seem to occupy an intermediate position between the Rickettsiae and the viruses. All members of the group are large enough to be seen with the oil immersion lens of the ordinary microscope. In addition to the etiologic agents of avian psittacosis and lymphogranuloma venereum of man, the group contains a number of other agents, some of which are comparatively new mammalian viruses, and some have been isolated from the human being. The exact relationships that all of them have to disease in man are still an unsettled problem. The following names have been applied to other agents of this group: (1) meningopneumonitis virus, (2) spontaneous mouse pneumonitis virus, (3) feline pneumonitis virus, (4) San Francisco pneumonitis virus, (5) Louisiana pneumonitis virus, (6) Illinois pneumonitis virus, (7) opossum virus A, (8) calf enteritis virus, and (9) virus of enzootic abortion in sheep.[6]

The human pneumonitis strains were recovered from man when there had been no known contact with or reservoir of infected birds or animals. Whether the so-called human strains can maintain themselves in man alone is still undetermined. A recent report on the isolation of a virus from snowy egrets, resembling the original Louisiana

virus, suggests that this particular organism is not strictly a human virus.[7] All agents in the group are infective coccoid elementary bodies which are integral parts of the life cycle of the psittacosis agent. All members of the group will infect mice by the intranasal route. On the basis of complement fixation tests, all are antigenically related, but neutralization tests may show distinct antigenic differences.

NON-PSITTACINE HOSTS

In addition to the known host reservoir in psittacine birds, information during the past 15 years has shown that the disease is widely distributed among birds of other species. When contracted from a non-psittacine bird, the disease is known as "ornithosis." Meyer has stated that enzootic psittacosis is constantly present in parakeet aviaries, and in pigeon and duck breeding establishments.[8,9,10] It is also known that chickens, turkeys and pheasants may be infected and may disseminate the agent.[11]

Five separate outbreaks of ornithosis have occurred in Texas in association with the dressing of turkeys in poultry-processing plants. The first two epidemics, which occurred between 1948 and 1952, resulted in 96 cases, with seven deaths. Between 1952 and 1954, a total of 264 cases were reported in that state, and 201 of the 264 resulted from the dressing of turkeys. In six years, a total of 297 cases were traced to this source.[12] In Oregon, in 1956, an outbreak of the disease resulted in 86 human cases in a group of 309 employees of a turkey-dressing plant who had been exposed to three flocks of infected birds. The individuals who contracted the disease worked either on the farm, in the processing plant or in the rendering plant. There were two deaths in that group.[5] In the Texas outbreaks, the highest incidence occurred among those employees actually engaged in dressing the turkeys.

The Iowa State Department of Health has found strong serologic evidence of the presence of ornithosis in Iowa turkey flocks, and the flocks have been widely scattered. In so far as is known, the presence of the disease has been of no consequence from the standpoint of human health.[13]

In 1954, a report was published concerning 37 cases of respiratory disease which occurred in one northwestern Illinois county, and which were associated with significantly high complement fixation titers for psittacosis. The chicken was the only bird to which exposure was common to all cases, and as a result, chicken serums from flocks in the area were collected and found to give 33 per cent positive reactions with the complement fixation inhibition test.[14] From these facts it seems apparent that the host reservoir for avian psittacosis is huge, or at least is potentially so.

Mention has already been made of viruses in the psittacosis-lymphogranuloma group other than those that cause avian psittacosis. Evidence has been presented which suggests that non-avian hosts may serve as reservoirs for these other agents. Complement fixation tests done on cattle serum from several Western states gave a high incidence of positive reactions. One group of 200 cattle from Kansas yielded sera that gave positive results in 17 per cent, with a titer of greater than 1:64. In that same study, sera from 42 Idaho sheep herders were tested and gave positive reactions in 16.7 per cent. Also in the same study, 1,915 human sera sent to the laboratory for other reasons were tested for the complement-fixing antibodies of the psittacosis virus, and 2.5 per cent were found positive.[15]

The avian host need not be ill in order to transmit the disease. Detection of the carrier state in psittacine birds is made difficult by the fact that the test can be done only by sacrificing the bird.

TRANSMISSION OF THE DISEASE

Infection from a pet bird is most likely to occur shortly after the bird has been introduced into the home. There is a higher incidence of the disease in the winter months—the highest being from January through April. This has been true in Iowa, where the greatest sales of parakeets as household pets occurs from just before Christmas until Easter.[16] Sporadic outbreaks of the disease, however, may occur at any time of the year. Meyer believes that the incidence of the disease in the early winter months results from the purchase of parakeets as Christmas gifts and from the fact that in the winter season people are in prolonged exposure to the birds in closed rooms.[6]

The respiratory tract is the principal portal of entry for the agent, but the disease may result from the bite of an infected bird, the virus being present in the bird's saliva. Most cases result from inhalation. When the agent has been passed in the excreta, it becomes airborne as a result of the movements of the bird, or as a result of a person's handling the bird or cleaning its cage.

Human-to-human transmission also occurs, probably as a result of the discharge of virus from the respiratory tract of an infected individual and inhalation by another. The 1943 Louisiana epidemic resulted in 19 recognized infections in nursing personnel, with eight deaths. Cases have also been reported among laboratory workers engaged in work with the psittacosis virus.[18-22]

The psittacosis virus may be grown in tissue culture or in the yolk-sac preparation. In the yolk sac, elementary bodies enter the cytoplasm of the cell and become imbedded in the homogenous matrix. Within this matrix, multiplication occurs, the bodies becoming smaller and smaller, but forming a plaque or colony of infective agents

which, with rupture of the cell membrane, invade other cells and repeat the process.

AUTOPSY FINDINGS

At autopsy, the main findings are in the lungs. Grossly, there are scattered areas of consolidation, but only one such area may be present. These areas are readily distinguished from the surrounding lung as grey, grey-red or plum-colored lesions. In most cases, the bronchi and trachea are free of exudate, and the mucosa is normal. Only when secondary bacterial invasion has occurred are the bronchi abnormal. On microscopic examination, an area which appeared consolidated may have many areas scattered through it which consist of normal air-bearing lung tissue. This feature is said to characterize the pneumonia of psittacosis and to distinguish it from the pneumonia of Q-fever and the other virus pneumonias. The alveolar exudate in the consolidated areas is composed of serum, fibrin and lymphocytes, with macrophages and desquamated alveolar epithelial cells. Many cells of this exudate show active phagocytosis, and the intra-cytoplasmic elementary inclusion bodies. The same picture may be seen in the hilar lymph nodes.

The liver is slightly swollen, and shows areas of focal necrosis. The Kuppfer cells contain the elementary bodies. The spleen is usually enlarged and the sinuses engorged with phagocytic cells. Hemorrhages and capillary thrombi have been noted in the adrenals of individuals dying of the more virulent forms of the disease. Edema of the brain and spinal cord have also been reported.

CLINICAL CHARACTERISTICS

The most noteworthy feature of the clinical picture in psittacosis is its extreme variability. It may affect all ages and both sexes. A case has been reported in a one-month-old infant in whom the diagnosis was established by isolation of the virus from the blood.[19] The incidence is slightly higher in women than in men. The incubation period varies from 7 to 14 days. The onset may be sudden, with shaking chills, fever, headache, general myalgia, photophobia, nausea and vomiting. Generally, however, in case reports from the literature, patients have not presented themselves to physicians until several days after the onset of symptoms. There usually is no cough at the onset, and this symptom may be absent during the entire course of the illness. Generally, it is minimal in spite of extensive pulmonary involvement. Sputum is scanty or entirely absent. It is usually mucoid, but may be blood-tinged. Headache is frequently the major complaint, and the disease may simulate encephalitis.[20]

In mild cases, the entire course of the disease may take no more than a few days, and the illness may subside without evidence of pulmonary involvement. In the more severe cases, however, the fever before the end of the first week reaches 104 or 105°F., and maintains itself with only slight morning remissions. Death may ensue as a result of extensive pulmonary involvement and toxemia. If recovery occurs, fever returns to normal by lysis over a period of several weeks.

Physical signs on examination of the lungs are usually minimal. Areas of dullness to percussion may be found, but the most prominent feature of the physical examination is the presence of crepitant rales after the fifth day of the disease. If the patient recovers, physical signs may disappear by the third week, but x-ray may show the process of resolution to be slower. The rate and depth of respirations are usually not influenced, except in fatal cases when cyanosis is frequently marked. The pulse is said to be slow in comparison to the fever, and rapid and of poor volume only when death is near. Deliriums may occur. The spleen is sometimes palpable, and is felt by some to be of diagnostic importance. However, it would seem that the presence of splenomegaly would depend primarily upon the severity and duration of the disease, and upon the time interval when effective antibiotic therapy was established. The white blood count and differential smears are usually normal, but leukopenia may be present.

LABORATORY CONFIRMATION OF DIAGNOSIS

The diagnosis may be confirmed in the laboratory by one of two methods: a rising titer on complement fixation test, or mouse inoculation of the virus. The psittacosis agent contains two antigens, one of them heat-stable and the other of them heat-labile. The heat-stable antigen is common to the entire group, and for that reason the lymphogranuloma venereum antigen will give a positive test with the serum of the psittacosis patient. Specific psittacosis antigen is available, however. As a matter of interest, we might mention that it has been possible by toxin neutralization tests to separate the psittacosis agent into some 27 different strains.

The complement-fixing antibodies appear in the blood of the psittacosis patient by the end of the first week of the disease. If tetracycline compounds are used early and intensively in treatment, they may delay, decrease or even completely suppress antibody production.[21] The complement fixation test should be performed at the onset of the illness, and should be repeated at intervals to detect a rising titer. A serum titer of 1:16 in a patient having clinical manifestations of the disease may be considered diagnostic. This, however, is a low titer, and the diagnosis should be made only cautiously in such a case. It is also commonly stated that a fourfold rise in titer is diagnostic. In 1942, Meyer reported that individuals constantly exposed to psittacosis virus, such as pet-shop employees and aviary owners, frequently have titers of 1:8 to 1:32. It is possible, when a low titer

exists, that the rise may be an anamnestic response.

The virus may be isolated from the blood or sputum by intraperitoneal injection of material into the white mouse. The virus may be obtained from the blood for about two weeks, and from sputum, vomitus or throat washings for about one month. Meyer and Eddie have reported one case in which it was possible to isolate the virus from throat washings for eight years. The mouse dies within 3 to 30 days, or in an average of 8 to 10 days. At autopsy, the peritoneum of the animal is covered with a thick, sticky exudate which on microscopic examination is found to contain cells rich in elementary bodies. The guinea pig cannot be used for this study, for most strains of the agent have little effect upon that animal.

THERAPY

Drug therapy has been quite successful against the members of the psittacosis-lymphogranuloma group. The sulfonamides were first used successfully in the treatment of lymphogranuloma venereum in 1938.[6] This group of drugs, however, has no appreciable effect upon the psittacosis virus. In the yolk-sac preparation of the chick embryo, penicillin will slow or prevent division of the elementary bodies in the cytoplasm of the cell. Growth frequently continues, however, and though abnormal, that continued growth goes on injuring the host cells. In birds and mice, the virus is not eliminated, and the animals become immune carriers of the disease.

The tetracycline drugs almost completely suppress the growth of the virus, and the small plaques of inclusion bodies which may form have little or no effect upon the invaded host cells. The literature contains numerous reports on favorable results of treatment of psittacosis with this group of drugs. Chloramphenicol would appear also to be effective. Streptomycin is ineffective. Experimentally, erythromycin is said to suppress the growth of the virus.

Prior to antibiotic therapy, the fatality rate was about 40 per cent. It is estimated to be about 2 per cent now. Relapses following therapy are not uncommon.

CASE REPORTS

Case 1. A 52-year-old white packing-house clerk became ill four days prior to his first examination, with fever, sweats, headache and general myalgia. Ten days prior to the onset of his illness, he and his son (Case 3) had gone to an aviary and purchased a parakeet for a household pet.

At the time of his first examination, his temperature was 103°F. He appeared moderately ill, but there were no other abnormal physical findings. He received 600,000 units of procaine penicillin daily for three days. His temperature remained elevated between 103 and 104°F. On the fourth day after the initial examination—eight days after onset—he had percussion tenderness over the liver, a slight lag in the movement of the right lateral costal margin and a slight cough on deep inspiration. He was hospitalized on that day.

The white blood count was 6,500/cu. mm., and the differential smear was normal. Agglutinations for typhoid, paratyphoid, brucella, and Proteus OX19, OXK and OX2 were negative. A chest film revealed areas of pneumonitis in the right hilar and perihilar regions, and in the left mid-lung field. Blood cultures were drawn, and the patient was started on tetracycline hydrochloride, 250 mg. every four hours. In 24 hours, there was marked clinical improvement. The patient was afebrile on the day after admission, and remained so. He was discharged after eight days of hospitalization.

A chest film at the time of discharge revealed a few residual strands in the areas previously involved. Twenty days after the onset of his illness, the complement fixation titer with psittacosis antigen was 1:128, and on the thirtieth day it was 1:64. The patient had no relapse.

Case 2. The 46-year-old wife of the patient just discussed became ill 20 days after the purchase of the parakeet. She was first seen four days after the onset of general malaise, and complained only of severe headaches. She was hospitalized on that day.

Her temperature was 102°F. by mouth. The white blood count was 5,250/cu. mm., and the differential smear was normal. Agglutination tests, like her husband's, were negative. A chest film revealed an infiltration in the right mid-lung field, and increased markings in both bases. On the fifth day, the complement fixation test with psittacosis antigen was negative. On the sixth day, a white mouse was inoculated intraperitoneally with the serum of the patient. On autopsy, the animal's peritoneum was covered with a thick, sticky exudate, smears from which disclosed the intracytoplasmic elementary inclusion bodies.

Therapy with tetracycline hydrochloride was started on the sixth day, in doses of 500 mg. every four hours for 24 hours, and then 250 mg. every four hours. The patient was afebrile within 24 hours, and was discharged after five days of therapy.

A chest film at the time of discharge was interpreted as showing a resolving pneumonitis in the right mid-lung field. The psittacosis complement fixation test was negative on the fourteenth day, or the twenty-fourth day of her illness. There was no relapse.

Case 3. The 28-year-old son of the man and woman just described experienced sudden chills and a temperature of 103°F. two days after the onset of his father's illness. Headache was severe. Five days later, a mild cough appeared, but it was never troublesome. On the fifteenth day of his illness, he began to raise small amounts of bloody sputum. His sweats were profuse, and he suffered pleuritic pain in both chests. Twelve days after onset, he

was so short of breath that talking was difficult. The chills ceased after two weeks, but he continued to have fever.

He had no medical care until the twenty-fifth day, when he was hospitalized. Examination disclosed an acutely ill, perspiring, mildly cyanotic young man, The temperature was 101°F., the respiratory rate was 40 per minte, and there was decreased costal-margin movement bilaterally, with a lag on the left. There was decreased resonance to percussion over the lower halves of both lung fields posteriorly, with decreased to absent breath sounds, but without bronchial breathing or rales. The spleen was not palpable.

The white blood cell count was 11,400, and the differential smear was normal. A chest film revealed consolidation of both lower lobes and the right middle lobe, with a probable pleural effusion on the right. The psittacosis complement fixation titer was 1:512.

He was treated with tetracycline hydrochloride, 500 mg. every four hours, for five days, and 250 mg. every four hours for another 15 days. He was pain-free and afebrile on the second hospital day. Resolution of the pneumonia required about 20 days. He continued to raise a thick, mucoid, dark-red sputum for about two weeks. There was no relapse.

Case 4. This patient, a 41-year-old white male, was hospitalized four days after the onset of malaise, general myalgia, cough, fever and poorly-localized chest pain. His temperature on admission was 102°F., and a few rales were heard in the base of the left lung. The urinalysis was normal, the white blood count was 9,800, and the differential smear was normal. For three days, the patient received 600,000 units of procaine penicillin and 0.5 Gm. of streptomycin daily. His temperature fell slowly to normal on the fourth day. At that time a chest film revealed an infiltration in the left lower lobe. Penicillin and streptomycin therapy was stopped, and treatment with Terramycin, 1 Gm. daily, was instituted. This treatment was continued until the patient's discharge, four days later.

Twenty-one days afterward, he had a recurrence of cough, malaise and myalgia, but had no fever. He was readmitted to the hospital, where a chest film again revealed an infiltration in the left base. At that time, however, it was less marked than it had been at the time of his previous admission. The white blood count was 6,500, and the differential smear was normal. He received 1,200,000 units of penicillin and 1 Gm. of streptomycin daily for four days. His symptoms subsided promptly. The psittacosis complement fixation test was positive 1:32, and five days later a second specimen was reported positive in a titer of 1:256.

The patient's family had a parakeet for a household pet. The bird was autopsied, and no evidence of psittacosis was found, but one week prior to the onset of the patient's illness, he and his family had visited relatives who had several parakeets in their home.

Two months after the onset of the patient's illness, complement fixation tests were done on specimens from his wife and two children. Serum from his wife and son were negative, but his 14-year-old daughter had a titer of 1:4, and a repeat specimen was reported positive in a titer of 1:8.

Case 5. This patient, a 40-year-old white male, had purchased two parakeets one month prior to the onset of his illness. His disease began suddenly, with chills, fever, myalgia and a slight cough. He was admitted to the hospital 24 hours later, with a temperature of 103°F., but with no other positive physical findings.

The white blood count was 6,250, and the differential smear was normal. A chest film was normal. Bromsulfalein retention was within normal limits. Agglutinations for typhoid, brucella, Proteus OX-19, OXK and OX2 were negative. Complement fixation tests for Rocky Mountain spotted fever, Q-fever and typhus were negative. A blood culture did not show growth after 14 days.

The patient received 600,000 units of penicillin and 0.5 Gm. of streptomycin every six hours for five days. His temperature dropped to normal in 48 hours, and remained so throughout the remainder of his five-day hospital stay.

Five weeks after the onset of his illness, the psittacosis complement fixation test was positive in a titer of 1:2. Seven weeks after the onset of symptoms, the titer had increased to 1:64.

Case 6. The patient, an 18-year-old white woman, worked in a variety store where parakeets were sold. She did not sell these birds, nor was she responsible for their care. Her illness began with headache and fever. Severe myalgia, malaise and fever increased in severity. In about four days, a mild cough was apparent, and in six days, nausea and vomiting appeared. She was admitted to the hospital seven days after the onset of symptoms, severely and acutely ill.

Her temperature on admission was 103°F. There were a few crepitant rales in the base of the left lung posteriorly. The liver and spleen were not palpable.

The white blood count was 12,000, and the differential smear was normal. The psittacosis complement fixation reaction was positive 1:124 on the day of admission. An indirect Van den Bergh and a bromsulfalein retention were both above normal limits. The cephalin flocculation test was 4+ in 24 hours. A chest x-ray on the day of admission revealed an infiltration in the left base.

For the first four days of her hospital stay, the patient was treated with 600,000 units of procaine penicillin and 0.5 Gm. of streptomycin every six hours. For the last three days of her hospital

stay, she received 100 mg. of Terramycin every six hours.

Her temperature fell to normal in the first four days, and symptomatically she felt well after that time. A repeat psittacosis complement fixation test performed five days after the original examination was positive in a titer of 1:256. Six days after admission, a repeat chest film was reported as normal. There was no relapse.

REFERENCES

1. Beaudette, F. R., ed.: Psittacosis: Diagnosis, Epidemiology and Control. New Brunswick, New Jersey, Rutgers University Press, 1955.
2. Editorial: The psittacosis problem. Am. J. Pub. Health, **44**:1067-1068, (Aug.) 1954.
3. Laubscher, J. H., Wentzien, A. J., and Jordan, C. F.: Psittacosis in Iowa; report of case. J. Iowa M. Soc., **35**:44-46, (Feb.) 1945.
4. U.S.P.H.S. Morbidity and Mortality Reports.
5. Personal Communication.
6. Meyer, K. F.: "Psittacosis-Lymphogranuloma Group." In: Rivers, Thomas M., ed.: Viral and Rickettsial Infections of Man. Second Edition. Philadelphia, J. B. Lippincott Co., 1952, p. 440.
7. Rubin, H., Kissling, R. E., Chamberlain, R. W., and Eidson, M. E.: Isolation of psittacosis-like agent from blood of snowy egrets. Proc. Soc. Exper. Biol. & Med., **78**:696-698, (Dec.) 1951.
8. Meyer, K. F., and Eddie, B.: Latent psittacosis infections in shell parakeets. Proc. Soc. Exp. Biol. & Med., **30**:484-488, (Jan.) 1933.
9. Meyer, K. F., Eddie, B., and Yanamura, H. Y.: Ornithosis (psittacosis) in pigeons and its relation to human pneumonitis. Proc. Soc. Exper. Biol. & Med., **49**:609-615, (Apr.) 1942.
10. Wolins, W.: Ornithosis (psittacosis); review, with report of eight cases resulting from contact with domestic pekin duck. Am. J. Med. Sc., **216**:551-564, (Nov.) 1948.
11. Karrer, H., Eddie, B., and Schmid, R.: Barnyard fowl as source of human ornithosis; case report. California Med., **73**:55-57, (July) 1950.
12. Irons, J. V., Mason, D., and White, R. F.: Psittacosis (ornithosis) in Texas. South. M. J., **49**:1061-1064, (Sept.) 1956.
13. Iowa State Department of Health: Bulletin, Jan. 7, 1956.
14. Ward, C. G., and others: Psittacosis-lymphogranuloma venereum virus antibodies in man; experiences with 37 persons with respiratory disease having significantly high antibody titers. J.A.M.A., **155**:1146-1150, (Jul. 24) 1954.
15. Gerloff, R. K., and Lackman, D. B.: Observations regarding presence of psittacosis and related viruses in northwestern states. Am. J. Pub. Health, **44**:323-327, (Mar.) 1954.
16. Hendricks, S. L., Heeren, R. H., and Evans, R. E.: Psittacosis in Iowa, 1953-1954. J. Iowa M. Soc., **46**:251-255, (May) 1956.
17. Olson, B. J., and Treuting, W. L.: Epidemic of severe pneumonitis in bayou region of Louisiana; epidemiological study. Pub. Health Rep., **59**:1299-1311, (Oct. 6) 1944.
18. Pollard, M., Bussell, R. H., Benedict, A. A., and Wilson, R.: Response of three human infections of psittacosis to antibiotic therapy. Antibiotics & Chemother., **4**:138-140, (Feb.) 1954.
19. Berman, S., and others: Ornithosis in infancy. Pediatrics, **15**:752-759, (June) 1955.
20. Seibert, R. H., Jordon, W. S., Jr., and Dingle, J. H.: Clinical variations in diagnosis of psittacosis. New England J. Med., **254**:925-930, (May 17) 1956.
21. Meyer, K. F., and Eddie, B.: Influence of tetracycline compounds on development of antibodies in psittacosis. Am. Rev. Tuberc., **74**:566-571, (Oct.) 1956.
22. Sulkin, S. E., and Pike, R. M.: Medical progress; viral infections contracted in laboratory. New England J. Med., **241**:205-213, (Aug. 4) 1949.

Elective Surgery in

Acute Cholecystitis

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AMES

EARLY SURGICAL intervention in acute cholecystitis has received increasing acceptance among surgeons.[1,5,9,11,21,30,34,35] However, this therapy is not widely supported by other physicians. Because of dissatisfaction with the results of conservative therapy, the surgeons at the McFarland Clinic decided to use early surgery whenever feasible. The reasons for that change in attitude and the results it produced over a three-year period are to be the subject of this paper.

From their study of dogs, Thomas and Womack concluded that the necessary conditions for the development of acute cholecystitis are: (1) obstruction of the cystic duct; (2) impairment of the blood supply; (3) action of concentrated bile within the gallbladder; and (4) occasional secondary development of bacterial infection which would be superimposed upon the chemical damage to the tissue.

The surgeons participating in our study thought that surgical interruption of acute cholecystitis, before the development of ischemia of the gallbladder wall, would be desirable for the following reasons.[32] First, the mortality rate should be lowered.[29] Perforation may occur in even the most carefully observed patient because of the lack of a dependable correlation between the viability of the gallbladder wall and the clinical and laboratory findings. The mortality rate for perforation of the gallbladder is generally accepted as being about 25 per cent.[19,27] Early surgery should greatly lower the number of perforations and thus reduce the mortality from acute cholecystitis, which has been reported as 1.6 per cent.[2] That rate compares unfavorably with the rate of 0.5 per cent usually expected following elective cholecystectomy.

Second, the morbidity should be reduced. If surgery is not performed during the patient's first hospitalization, it probably will be required later, for most of these individuals have subsequent attacks. (Eighty per cent of the patients in this series had been diagnosed as having gallbladder disease prior to the hospitalization during which surgery was performed.) Furthermore, the morbidity isn't limited to the durations of the acute attacks, for after each such episode there is usually a long period of hepatic dysfunction, believed to last from several weeks to more than a year. This con-

tention has been substantiated by liver biopsies performed at the time of cholecystectomy and at intervals of varying lengths following an attack of acute cholecystitis.[15,25]

Third, surgery performed early should prove economical for the patients, if the hospitalization is not prolonged. In addition to the hospitalization for conservative treatment, patients usually require readmission for cholecystectomy.[10]

There are several possible disadvantages in such a plan: 1. The surgical mortality may be increased. 2. Prompt surgery may in some instances require longer postoperative hospitalization than would elective surgery. 3. Errors in diagnosis are possible. 4. There may be technical disadvantages. These possibilities will be discussed in connection with the results of our study.

OUR PLAN

The plan which we adopted called for the performing of surgery as soon as possible after a definite diagnosis had been established and the patient could be prepared for the operation. In addition to routine laboratory work, physical examination and the replacement of electrolytes, the workup frequently included an electrocardiogram, serum amylase, and oral or intravenous cholangiography. If the patient was considered a poor surgical risk, conservative measures were instituted. Surgery, in such a case, was performed only when it became mandatory.

The diagnosis of acute cholecystitis was made on the basis of the following criteria: (1) typical gallbladder pain recurring after adequate analgesics, (2) continued rigidity and tenderness over the gallbladder area, (3) presence of a mass in the gallbladder region. Clinical and laboratory signs of infection were helpful, if present. In this series, the presence of pain unrelieved by analgesics, and tachycardia were two ominous signs that indicated a gangrenous gallbladder wall.

With this plan in operation, a diagnosis of acute cholecystitis was made in 59 patients. Surgery was performed on 55 of them. Three of these cases were operated upon after a waiting period of from one to six months after the acute attack. Of the 52 patients who were subjected to surgery during their original hospitalizations, 44 fell under the plan outlined above. These patients were considered as elective cases. The other eight patients should be classified as mandatory-surgery cases, and would have required surgery under any plan of management.

THE 44 CASES OF ELECTIVE SURGERY

The 44 elective cases were all seen early in the course of their illnesses, and their clinical conditions did not make surgical intervention necessary. In this group there were no mortalities. The hospital stay for these patients was the same as for those with the usual sort of elective biliary-tract surgery.

The surgery was complicated in none of the cases. Cholecystectomies were performed on all patients, and nine of them had choledochotomies. There were five in whom the preoperative diagnoses had been erroneous. Two of those five had been diagnosed as having acute appendicitis, but were found to have acute cholecystitis. Another two of those five had been thought to have acute cholecystitis, but were found to have obstruction of the common duct with cholangitis. The fifth patient had an acute interstitial pancreatitis. Her recovery was uneventful.

The clinical courses of the other eight patients made surgical intervention mandatory. The durations of the illness in those patients ranged from two hours to 21 days. The surgical mortality was 25 per cent. One of the deaths occurred in a 70-year-old man who had acute hemorrhagic pancreatitis. His serum amylase was reported as normal. The second mortality was a 90-year-old man seen on the seventh day of his illness, with a gangrenous, perforated gallbladder and choledocholithiasis, with obstruction. All of these patients had perforated gallbladders, except for the patient with acute hemorrhagic pancreatitis. The average hospital stay of these patients was much longer than that of the patients who underwent elective surgery.

In the elective group there were four cholecystotomies, one cholecystectomy, one cholecystectomy and choledochotomy, one retroperitoneal drainage, and one excision of the peritonealized portion of the gallbladder. In these eight cases, the surgical procedure was fitted to the condition of the patient in each instance.[9,11] There was one diagnostic error, as described above. Two of the patients had subsequent cholecystectomies.

Although these surgical procedures were technically easy, the recovery period was prolonged. That finding substantiates the observations of others that the cholangitis associated with acute cholecystitis may be present for a long period of time.

SUMMARY AND CONCLUSIONS

1. Early surgical intervention in acute cholecystitis was performed in all but poor-risk patients over a three-year period. The results have been presented.

2. Early surgical intervention in acute cholecystitis is preferable to conservative management.

3. This method of therapy interrupts a disease which could progress to perforation of the gallbladder.

4. The morbidity is reduced, and the technical difficulties of surgery are not greatly increased.

5. The surgical procedure must be fitted to each patient's clinical condition and to the findings at the time of surgery.

BIBLIOGRAPHY

1. Judd, E. S., Jr.: Surgical treatment of acute cholecystitis. Proc. Staff Meet. Mayo Clinic, **23**:142-147, (Mar. 17) 1948.
2. Cole, W. H.: Acute cholecystitis. Mississippi Valley M. J., **77**:85-89, (May) 1955.
3. Gray, H. K., and Lofgren, K. A.: Cholecystostomy in treatment of acute cholecystitis. Postgrad. Med., **6**:365-371, (Nov.) 1949.
4. Zollinger, R. M., and Gross, H. D.: Acute gallbladder. Ohio State M. J., **44**:473-476, (May) 1948.
5. Zollinger, R. M.: Management of acute cholecystitis. Wisconsin M. J., **47**:472-475, (May) 1948.
6. O'Neil, J. H.: Treatment of acute cholecystitis. J. Missouri M. A., **45**:425-429, (June) 1948.
7. McDonald, J. J., Johnson, G. B., and Littlefield, J. B.: Acute cholecystitis; report of 100 consecutive cases treated surgically with no mortality. J. M. A. Georgia, **42**:347-350, (July) 1953.
8. Pearce, A. E.: Acute cholecystitis; planned cholecystectomy at any time during course of disease. Pennsylvania M. J., **58**:598-602, (June) 1955.
9. De Camp, P. T.: Prevention and management of acute cholecystitis. Postgrad. Med., **14**:374-376, (Nov.) 1953.
10. Glenn, F., and Wantz, G. E.: Acute cholecystitis following surgical treatment of unrelated disease. Surg., Gynec. &. Obst., **102**:145-153, (Feb.) 1956.
11. Glenn, F.: Surgical treatment of acute cholecystitis. Bull. New York Acad. Med., **22**:284-291, (June) 1946.
12. Frehling, S.: Acute cholecystitis; optimum time for surgical intervention based on physiopathologic picture. J. Internat. Coll. Surgeons, **20**:204-207, (Aug.) 1953.
13. Behrend, M.: Treatment of acute cholecystitis. J. Internat. Coll. Surgeons, **19**:618-622, (May) 1953.
14. Johnson, J. H.: Acute cholecystitis. South. Surg., **14**:683-689, (Oct.) 1948.
15. Freund, H. R.: Acute cholecystitis. Am. J. Surg., **82**:703-708, (Dec.) 1951.
16. Walton, J., Acute cholecystitis. Practitioner, **158**:11-16, (Jan.) 1947.
17. Culver, G. J., and Kline, J. R.: Acute gaseous cholecystitis; report of case. Radiology, **50**:536-538, (Apr.) 1948.
18. Heifetz, C. J., and Senturia, H. R.: Acute pneumocholecystitis. Surg. Gynec. & Obst., **86**:424-433, (Apr.) 1948.
19. Strohl, E. L., and Diffenbaugh, W. G.: Acute cholecystitis. Surg. Clin. North America, **32**:63-69, (Feb.) 1952.
20. Goldman, L., Morgan, J. A., and Kay, J.: Acute cholecystitis: correlation of bacteriology and mortality. Gastroenterology, **11**:318-325, (Sept.) 1948.
21. Marshall, S. F., and Phillips, E. S.: Acute gallbladder. Surg. Clin. North America, **28**:633-639, (June) 1948.
22. Blackburn, G.: Acute cholecystitis. Practitioner, **164**:254-257, (Mar.) 1950.
23. Tempest, M. N.: Acute cholecystitis in child aged four, treated by cholecystectomy; report of case, with brief review of literature. Brit. J. Surg., **38**:111-112, (July) 1950.
24. Hancock, J. D.: Surgical treatment of acute cholecystitis. South. Surg., **12**:219-227, (Oct.) 1946.
25. Ross, F. P., Boggs, J. D., and Dunphy, J. E.: Studies in acute cholecystitis; pathological process in relation to clinical management of disease; fallacy of "critical period." Surg. Gynec. & Obst., **91**:271-276, (Sept.) 1950.
26. Eastwood, D., and Womack, N. A.: Sympathetic nerve block in early acute cholecystitis. AMA Arch. Surg., **63**:128-131, (July) 1951.
27. Cole, W. H.: Treatment of acute cholecystitis. Postgrad. Med., **9**:349-352, (Apr.) 1951.
28. Bonta, J. A., and Lovingood, C. G.: Acute cholecystitis in childhood; report of case. Surgery, **31**:309-311, (Feb.) 1952.
29. Horwitz, A., McCorkle, R. G., Jr., and Alpert, S.: Acute cholecystitis; comparative study of 60 consecutive cases of acute cholecystitis treated by immediate surgery and 60 consecutive cases treated by delayed surgical intervention. M. Ann. District of Columbia, **22**:127-132, (Mar.) 1953.
30. DeCamp, P. T., Ochsner, A., and others: Timing in surgical treatment of acute cholecystitis. Ann. Surg., **135**:734-745, (May) 1952.
31. Tooms, D.: Acute emphysematous cholecystitis. Proc. Roy. Soc. Med., **48**:757-759, (Sept.) 1955.
32. Rosenblatt, M. S.: Vascular obstructed acute gallbladder. Am. J. Surg., **75**:587-588, (Apr.) 1948.
33. Thomas, C. G., Jr., and Womack, N. A.: Acute cholecystitis, its pathogenesis and repair. AMA Arch. Surg., **64**:590-600, (May) 1952.
34. Borland, V. G., and Jaehning, D.: Acute cholecystitis; its early surgical treatment; report of 108 cases. Surgery, **32**:581-590, (Sept.) 1952.
35. Bell, L. G., Brown, R. B., and Lenhardt, H. F.: Acute pneumocholecystitis; review and report of two cases. Ann. Surg., **138**:268-274, (Aug.) 1953.
36. Buxton, R. W., Ray, D. K., and Coller, F. A.: Acute cholecystitis. J.A.M.A., **146**:301-307, (May 26) 1951.

The Dangers of Ophthalmic Corticosteroids

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AT THE UNIVERSITY Eye Clinic during the past few years, a number of patients have been seen who suffered severe complications from the promiscuous use or misuse of corticosteroid ophthalmic drops and ointments. The incidence has been great enough to justify my making a strong plea to physicians generally to reevaluate their use of ophthalmic corticosteroids.

The corticosteroids are a very valuable group of drugs in the treatment of eye diseases. Their mechanism of action is quite well understood. They reduce or inhibit the inflammatory response of the ocular tissues. Systemically administered, they affect the entire eye, whereas topically applied, they affect only the lids, conjunctiva, cornea, iris and ciliary body. Most practitioners do not prescribe systemic corticosteroids for ocular conditions. Therefore, this paper will be confined to the dangers in the misuse of the topically-applied medications.

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Local cortisone therapy in the eye is *effective* in:

1. Iritis and iridocyclitis (non-granulomatous forms; occasional granulomatous forms)
2. Allergic conjunctivitis
3. Episcleritis and anterior scleritis
4. Interstitial keratitis
5. Phylectenular conjunctivitis and keratoconjunctivitis
6. Acne rosacea keratitis and keratoconjunctivitis
7. Vernal conjunctivitis
8. Marginal corneal ulcers (sensitivity reactions).

Local corticosteroid therapy in the eye is *ineffective*, and thus is *contraindicated* in:

1. Most corneal ulcers
   a. Herpes simplex (dendritic ulcers)
   b. Other viral ulcers
   c. Fungus ulcers
   d. Bacterial (except hypersensitivity) ulcers
2. Corneal abrasions

3. Viral conjunctivitis
4. Bacterial conjunctivitis
5. Most granulomatous iritis.

It is, of course, impossible to make a differential diagnosis of many of the above-listed ocular conditions without special equipment. Cultures, smears and scrapings are essential, since the symptoms are frequently identical—red, irritable eyes with some tearing, discharge and photophobia.

Because of the common symptomatology and because of the physician's lack of time and special equipment, there is a tendency, too frequently, for him to prescribe an ophthalmic product containing an antibiotic (often in doses too small to be effectual) and one of the corticosteroids. In doing so, the doctor follows the advice of a detail man, whose sales talk has been something like this: "If it's an iritis, the cortisone will take care of it. If it's a conjunctivitis, it's either bacterial, allergic or viral. The bacterial type will be managed by the antibiotic, and the allergic by the corticosteroid. Nothing will help a viral conjunctivitis, anyway."

Although there is some truth in such statements, they constitute a highly dangerous working hypothesis. There is no panacea for the treatment of red eyes. Moreover, there may be severe danger in treating any infectious process or corneal disease of the eye with corticosteroids.

AVOID CORTICOSTEROIDS IN CHRONIC ALLERGIC CONJUNCTIVITIS

Conjunctivitis is usually recognized by most practitioners, and it can and should be treated by them. However, to differentiate bacterial, viral and allergic cases is sometimes quite difficult without smears and cultures. The onset, exposure, appearance and course of the disease all help in the making of a differential diagnosis.

Then, granted that the physician can make this differential diagnosis, the question arises, "Why should one use corticosteroids?" In the acute allergic reaction, corticosteroids are, of course, the treatment of choice. But in the chronic allergic case of conjunctivitis—a condition which is diagnosed far more often than it actually occurs—it is far better to determine the allergen than merely to inhibit the eye's reaction to it. Frequently, the origin of the allergy can be discovered—either by the patient or by the allergist—if the patient is left off cortisone. Also, we have seen at least one case in which the patient had an allergic reaction to the cortisone drops.

DON'T USE THEM IN BACTERIAL OR VIRAL CONJUNCTIVITIS

In bacterial conjunctivitis, there is no justification for using any corticosteroids. The treatment should consist of the proper antibiotics—determined, if possible, by sensitivity tests. But such tests are not always practical, and most cases of conjunctivitis will subside following treatment with any of a number of antibiotics. There is no more reason for using corticosteroids along with the antibiotics in the treatment of bacterial conjunctivitis than there is for using such a combination in treating acute bacterial infections elsewhere in the body. Corticosteroids inhibit the defensive mechanism, and if the antibiotic were ineffective or only partially effective, the bacterial infections could actually be *spread.*

If the conjunctivitis has been produced by a virus, except for some of the larger viri such as trachoma, lymphogranuloma venereum, etc., no antibiotic will be effective except as a means of controlling secondary infections. The body's defensive mechanisms are needed for combatting the infection, and it is therefore important that one should not use local corticosteroids. Secondary keratitis may result from the treatment of viral conjunctivitis with corticosteroids.

ABOVE ALL, DON'T USE THEM IN DISEASE OF THE CORNEA

The most serious misuse of the corticosteroids is in the treatment of corneal infections. The etiology of a corneal ulcer is most difficult to determine in many instances. Cultures are frequently negative, and the appearance of the lesion is often atypical. Since the cornea is avascular, its defensive mechanism is less efficient than are those of other parts of the body. Therefore, any inhibition of this mechanism is fraught with danger.

The treatment of choice in bacterial corneal ulcers is the correct antibiotic or antibiotics. Corticosteroids, although they relieve the pain and decrease the edema and cloudiness of the corneal tissues, actually promote the spread of the ulcer! Experimentally, it is true, corticosteroids do not affect corneal ulcers adversely, if the proper antibiotic is employed. But again, one cannot be certain of the antibiotic unless he has run sensitivity tests against the cultured organism. It would seem, therefore, that one should employ antibiotics alone, since by doing so, one at least runs little chance of harming the eye.

Corneal ulcers from virus or fungus infections are aggravated by the use of corticosteroids, either alone or in combination. A rapid spread can occur following their use. In experimental studies, it has been repeatedly found that the prognosis with no treatment is better than the prognosis with corticosteroid therapy alone or with combined corticosteroid and antibiotic treatment. In this Clinic, we have seen actual perforations of the cornea following prolonged corticosteroid therapy in viral ulcer cases. Sadly enough, however, the patient and his physician have been misled, since subjectively the eye felt better, and there was less swelling of the tissues and considerably less necrotic tissue visible.

As I have said, the corticosteroids are valuable

in the treatment of non-granulomatous iritis and some forms of granulomatous iritis. But in some of the granulomatous forms—tuberculous, luetic, toxoplasmic, etc.—corticosteroids are contraindicated, since they can promote the spread of the disease by repressing the normal defensive mechanism. Therefore, unless one has eliminated certain of the granulomatous diseases, the use of cortisone is unwarranted, and indeed it can be quite dangerous.

WHEN SHOULD OPHTHALMIC CORTICOSTEROIDS BE USED?

I should say that unless the doctor has a special interest in ophthalmologic problems and is able to differentiate the above-described conditions, he would do well to avoid ophthalmic corticosteroids altogether! Furthermore, I should stress that antibiotic-corticosteroid products confer a false sense of security. I certainly believe that the non-specialist is qualified to treat conjunctivitis, corneal injuries, corneal foreign bodies, etc., but I feel that he should employ antibiotics *alone*. I should advise his using corticosteroids only when an acute allergic reaction is present.

SUMMARY

Local corticosteroids, either alone or combined with antibiotics, are potentially dangerous drugs to use in the eye.

They are contraindicated in viral and fungal infections of the cornea.

They should be avoided in bacterial infections of the cornea.

The preferred treatment of most cases of conjunctivitis is *antibiotics without corticosteroids*.

The indiscriminate use of corticosteroids, either alone or in combination with antibiotics, may lead to a decrease in resistance and reparative processes, may spread the infection, and in some instances may lead to the actual loss of the eyeball.

REFERENCES

1. Ley, A. P.: Experimental fungus infections of cornea. Am. J. Ophth., 42:59-71, (Oct.) 1956.
2. Thygeson, P., Hogan, M. J., and Kimura, S. J.: Cortisone and hydrocortisone in ocular infections. Tr. Am. Acad. Ophth., 57:64-85, (Jan.-Feb.) 1953.
3. Hogan, M. J., Thygeson, P., and Kimura, S.: Uses and abuses of adrenal steroids and corticotrophin. Tr. Am. Ophth. Soc., 52:145-171, 1954; AMA Arch. Ophth., 53:165-176, (Feb.) 1955.
4. Allen, J. H.: Principles of treatment of infectious diseases of lids, conjunctiva and cornea. Mississippi Doctor, 32:78-81, (Aug.) 1954.

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Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 16-YEAR-OLD BOY was admitted to the University Hospitals complaining of a headache of six months' duration. The headache was not precisely localized, nor did it seem to follow any specific pattern or affect his sleep. The symptom, indeed, was not regarded as very serious until approximately one week before admission, when it became associated with precipitous vomiting. The patient also recalled having noted some hearing loss in the right ear for about four months. During the two weeks prior to his admission, his mother had noticed some stumbling in his gait and veering to one side, in addition to a tendency to hold his head to the left. The patient felt clumsy on turning. He denied any facial numbness, difficulty in swallowing, diplopia or cough. He was aware, however, of some vague change in his speech.

The positive findings on physical examination included: horizontal nystagmus bilaterally, with questionable vertical nystagmus; bilateral papilledema, with distention of the retinal veins; marked hearing loss on the right to both air conduction and bone conduction; minimal weakness of the facial musculature on the right; slight ataxia on the finger-to-nose test on the right; moderate ataxia on the heel-to-knee test bilaterally; a positive Romberg; clumsy gait and awkwardness of alternating motion on the right. The blood pressure was 130/70 mm. Hg., and the pulse rate was 80 per minute. There were numerous palpable cervical lymph nodes, particularly in the right anterior triangle.

Routine blood and urine examinations were within normal limits. X-rays of the skull, including special views of the petrous apices, were entirely normal. A roentgenogram of the chest was normal. The sedimentation rate was 9 mm. per hour. The right eighth nerve was insensitive to both auditory and vestibular stimuli.

During the first three days in the hospital, there was a definite increase in the papilledema. On the fourth hospital day, a suboccipital craniectomy was carried out, with demonstration of a lesion markedly compressing the right eighth cranial nerve and producing a definite depression in the lateral surface of the pons. The lesion was excised.

The patient's immediate postoperative condition was excellent. His blood pressure was 110/60 mm. Hg., and his pulse 120 per minute. On the second postoperative day a neurologic examination revealed mild, peripheral-type seventh-nerve paresis on the right; questionable hypalgesia over

the right side of the face; and a tendency for the eyes to deviate to the left. At that time the vital signs had been stable for approximately 24 hours. Later that day, however, the patient seemed to be less responsive; his pulse rate began to rise; and there was a decrease in the depth of his respiratory excursions. His respiratory rate gradually increased to 30 per minute. The systolic blood pressure remained stable, but the diastolic pressure rose to between 90 and 100 mm. Hg. The following day, the patient began to have periods of mental confusion, with disorientation. The pulse rate increased to approximately 140 per minute. On the evening of the third postoperative day, the patient had an emesis of dark brown material. When examined at that time, he was found to have slight cyanosis, laryngeal stridor, irregular pulse and a blood pressure of 70/50 mm. Hg. A nasotracheal tube was introduced, and later that same evening, a tracheostomy was performed. The patient's color then improved, and he appeared to be much more comfortable.

On the afternoon of the fourth postoperative day, however, the patient began to complain of abdominal pain, predominantly in the right lower quadrant. No bowel sounds could be heard. Rectal examination revealed no impacted fecal material or point tenderness. There was profuse sweating over the extremities, though they were cold to the touch. The pulse was 142 per minute, and the rectal temperature was 100.4°F. The patient was given 500 cc. of whole blood, following which the pulse rate was 128 per minute, the patient reported less abdominal pain and the skin of the extremities seemed warm again. However, there was still some general abdominal tenderness, and no bowel sounds could be heard. Later that day, he was given 500 cc. of whole blood, once again. The hemoglobin value at that time was 16.5 Gm./100 cc., and the red count was 6,300,000 per cu. mm.

In the early hours of the fifth postoperative day, the pulse again rose to 140 per minute; the respiratory rate increased to 46 per minute; and the blood pressure for the first time was elevated. Abdominal pain continued, and no peristalsis could be heard. The patient's temperature rose to 103°F., rectally. Although he had been receiving tetracycline, aqueous penicillin (1,000,000 units every four hours) was started. After a third transfusion of 500 cc. of whole blood, the hemoglobin was approximately 19 Gm./100 cc., the red count was 7,000,000 per cu. mm., and the hematocrit was 65 per cent. A urinalysis revealed a specific gravity of 1.010, albumin 2+, no sugar, from 1 to 4 white cells per high power field, and many granular casts. Soon afterward, the blood pressure dropped precipitously, and was maintained above shock level only by means of Levophed. The patient's responsiveness was markedly diminished, and though at times he appeared to be attempting vocalization, he seemed able to respond only poorly to the simplest of requests.

That same day, for the first time, it was noted that the patient's right pupil was smaller than the left, though a response to light could still be observed bilaterally. Lumbar puncture revealed an initial pressure of 330 mm. H_2O and xanthochromic fluid. After the removal of 10 cc., the final pressure was 280 mm. H_2O. The spinal fluid contained 22 white cells per cubic millimeter; the protein was 57 mg./100 cc.; and the sugar was 65 mg./100 cc.

The next day, the abdomen was noted to be distended, silent and resistant to palpation. Scout films of the abdomen failed to reveal air in the peritoneal cavity. Urinary output began to diminish at about this time.

During the final two days of the patient's life, the peripheral vascular collapse gradually became less responsive to the various supportive measures. His respirations became irregular, and he died on the eighth postoperative day.

CLINICAL DISCUSSION

Dr. Edgar S. Brintnal, Department of Surgery, Iowa City VA Hospital: The protocol concerns a 16-year-old boy who had apparently been in good health until six months before he came to this hospital. At that time he began having headaches. Finally projectile vomiting, some difficulty with equilibrium, and loss of vestibular sense and auditory sensation on the right made their appearance, presumably as results of interference with both elements of the eighth nerve.

When he came here, he had nystagmus and evidence of intracranial tension. At that time he had some palpable cervical lymph nodes, and as I went over the protocol, that fact bothered me a bit. I realized that in children cervical lymph nodes are quite common and are often unexplained. Otherwise, the case up to that moment would have seemed to me a rather straightforward one of posterior fossa tumor, with symptoms involving the cerebellum and the eighth nerve, and to a lesser extent the seventh nerve. These symptoms and signs are seen with cerebello-pontine angle tumors, but they usually occur in patients older than 16 years of age. It is my impression that these cervical lymph nodes were not of a great deal of importance.

The blood and urine examinations were of no help, the chest x-ray was normal, and the skull x-rays are said to have been read as normal. Eighth-nerve insensitivity was demonstrated in both components.

After the patient had been in the hospital for a few days, the evidence of intracranial pressure

increased, and craniotomy was carried out. A lesion was removed from the posterior fossa which had compressed the cerebellum and the pons. It should have accounted for the intracranial signs that the patient had presented.

At this time I should like to ask Dr. Gillies to tell us whether the skull x-ray revealed anything unusual. I ask because if the lesion were a meningioma, there may have been some calcification within the tumor. In the absence of calcification, it could have been a neurilemmar sheath tumor, though it could still have been a meningioma.

Dr. Carl Gillies, Radiology: There were no abnormal areas. There was some evidence of pressure, but no calcification.

Dr. Brintnal: Dr. Stamler, is it within the rules for me to ask you what report the pathologists made on this lesion or tumor?

Dr. Frederic W. Stamler, Pathology: Though I did frozen sections on this lesion, I had considerable difficulty in arriving at an identification of the tumor type. The most common tumor of the cerebello-pontine angle is the eighth-nerve tumor —the so-called acoustic neuroma or neurilemmoma. This tumor did not have the histologic appearance of such a neoplasm. The second most common tumor in this location is a meningioma. Histologically, I thought this lesion was much more suggestive of such a tumor, although it did not have typical features, and particularly, I did not find any of the peculiar areas of calcification which are often, though not invariably, found in these tumors. Tumors of glial origin are less common in this location, but I didn't feel that I could make such a diagnosis. Consequently, the tentative pathologic diagnosis was meningioma of somewhat unusual histologic appearance.

Dr. Brintnal: Thank you, Dr. Stamler. It seems that we may have been right so far in assuming that the lesion in this patient was a meningioma or benign tumor in the posterior fossa.

Immediately after the operation, the patient seemed—according to the protocol—to do quite well. A little later, he showed some variations in pulse, blood pressure, temperature and level of consciousness, but those phenomena can't be considered unusual, for the craniotomy had been performed for the removal of a lesion in the midbrain, where postoperative edema or thrombosis can produce some variations in the vital signs.

On the third day after the operation, we are told, the patient had an emesis of dark brown material. This should give us cause for thought. Could it be that the emesis was blood released by trauma incident to nasal intubation and swallowed at the time of the operation? That is a possibility. It is also possible that the patient developed his cyanosis and respiratory difficulty because of the aspiration of some of this material. Various types of respiratory difficulty can occur on a central basis postoperatively, in such cases, and perhaps it is not necessary for us to postulate aspiration in accounting for them. One may wonder whether the patient had an acute gastric dilatation, for it can happen after craniotomy, but the neurosurgical service here is so well aware of that possibility that I shouldn't expect anything of that sort to go so long unrecognized. A tracheotomy was done, and an unusual improvement followed the reduction of anoxia and, presumably, the cleaning of an airway.

About this time, the patient was showing some mental confusion and a diminution in his state of consciousness. Again, this all could have been central in origin. By the fourth day after operation, the patient must have been reasonably responsive, for he complained of abdominal pain, predominantly in the right lower quadrant of the abdomen. Although an ileus after craniotomy is not very uncommon, it may be uncomfortable but not painful. Therefore, I must consider the strong possibility that something was actually going wrong within the patient's peritoneal cavity. The lack of bowel sounds at that time would support our thinking either of an ileus or peritonitis, or any other sort of abdominal catastrophe. I think the abdominal tenderness described that same day or the next is of considerable importance, for to me a true abdominal tenderness is of great significance.

By the fifth postoperative day, the patient was still having some variations in pulse rate, blood pressure, temperature and abdominal pain. About that time, he was given transfusions. Now it is interesting to me that following the transfusion, he showed a considerable amount of hemoconcentration, as if he were losing plasma somewhere within his body. Another transfusion was given, and I think we cannot account for the hemoconcentration on the basis of dehydration, for the specific gravity of the urine was not high. I tend to discount the low specific gravity, the albumin and the few white cells and casts, for I think that this situation probably was not a primary renal disorder.

The patient's responsiveness diminished at that time, and apparently there was a great deal of concern for his well-being and a desire for an immediate diagnosis, for a lumbar puncture was performed. The fluid was xanthochromic and had a few cells, but the protein and sugar were within normal limits, indicating that the patient did not have much in the way of meningeal infection.

The following day or two after the first abdominal symptoms were complained of, and six days after the operation, the abdomen was distended, silent and "resistant." Now *resistant* doesn't mean a great deal to me. It suggests that possibly the patient had an actual muscle spasm. We see resistance in any sort of distention, but I should be more interested in knowing whether there was true

muscle-guarding. In any event, the physicians concerned with the patient at that time had their attention sufficiently directed to the abdomen so that they had a film taken of the abdomen, and the protocol contains the note that there was no free air within the peritoneal cavity. Perhaps at this time Dr. Gillies will comment on those films, and I should like to ask him whether lateral films are anywhere nearly as accurate as standing or upright ones for showing air.

Dr. Gillies: The patient was seriously ill, and it was impossible to obtain an upright film. The lateral are not quite so satisfactory as those which are taken when the patient is able to cooperate. Our laterals showed no free air in the abdomen. A right lateral and a left lateral decubitus films were taken so that any free air would float up to the top and we would be able to see it. A supine film showed no unusual amount of gas distention. The chest film was taken after the tracheotomy, and in it we saw no collapse, and the lung fields were clear. Thus, the examination was negative.

Dr. Brintnal: Do you conclude that those films failed to support a diagnosis of ileus?

Dr. Gillies: Yes.

Dr. Brintnal: There was no air distributed throughout the small and large bowel that might have indicated ileus?

Dr. Gillies: That is right. There was no more than a normal amount of air in the colon.

Dr. Brintnal: That, it seems to me, may be important, for if we are going to look for a cause of this patient's distention, we must, then, think of something other than ileus.

The urinary output began to diminish at about that time, and with all the difficulties which the patient was in, that development must not have been surprising. His subsequent course was one of vascular collapse, and it became so severe that the pressure had to be sustained by means of Levophed. To me, that is always a very bad prognostic situation, and as a matter of fact, this patient continued to go downhill and died.

As far as I am concerned, the first of the problems in this case—if, indeed, there are two of them—has been pretty well solved. The patient had an intracranial neoplasm in the cerebellopontine angle area, most likely a meningioma. That accounted for a great deal of the trouble. Now, we must ask ourselves whether his abdominal disorder was something separate, or whether it was a consequence either of the intracranial tumor or of the craniotomy.

I think we must postulate that something was drastically wrong in his abdomen. The tenderness and the distention—particularly since there was no evidence of ileus—and the pain of which he complained are all indications that there was something wrong within the peritoneal cavity.

Another finding that seemed important to me was the hemoconcentration. I think that it cannot be accounted for by the amount of the transfusions that the patient received or by dehydration, since the specific gravity of the urine was not high. Therefore, it seems that the patient was losing plasma from his circulating fluid. Since he certainly didn't lose all of it intracranially, since he had no fistula through which he was losing fluid, and since the abdomen was distended and without air, I am led to the conclusion that he was losing plasma into the peritoneal cavity or into the bowel. Therefore, I think the patient had an abdominal catastrophe of some sort in addition to his intracranial lesion.

Now, to my way of thinking, the pathologic diagnosis of the intracranial tumor as a meningioma pretty well eliminates the possibility that the abdominal and intracranial tumors may have been produced by a common etiologic agent. The next question, then, is whether or not the abdominal situation can have been secondary to the intracranial disease and/or to the craniotomy. I think that several possibilities have to be considered, and two of possibilities have to be considered, and two of them stand out in my mind as especially likely. An unrecognized or inadequately treated acute gastric dilatation would account for distention and vomiting, and could lead to shock. If untreated, it could finally kill the patient. However, the patient was a little young for a fatal acute gastriic dilatation, and his course was not characteristic of that complication. The next possibility in which the abdominal lesion could be secondary to the intracranial lesion is Cushing's ulcer. Cushing's ulcer of the duodenum or elsewhere in the intestinal tract could bleed, and thus account for the blood in the emesis. It could account for the loss of fluid into the abdominal cavity and could account for the hemoconcentration, particularly if the ulcer had perforated so that the patient had peritonitis. I think that this is a possibility. The strongest contraindication, I believe, is the fact that there was no free air in the peritoneal cavity, for in about 80 to 85 per cent of gastric or duodenal ulcer cases, there is free air in the peritoneal cavity.

Now, let us proceed to the last possibility—one which I really hate to propose—that the abdominal difficulty in this patient was in no way related to his intracranial lesion, but was purely coincidental. Since the boy was 16 years old, since he had abdominal symptoms and signs consistent with peritonitis and loss of fluid within the abdomen, and since his symptoms started in the right lower quadrant, one must consider the possibility of acute suppurative appendicitis with generalized peritonitis.

Any other abdominal catastrophe which could produce distention and fluid loss, and might terminate fatally, could account for the same sort of thing—pancreatitis, infarction of the bowel, venous or arterial mesenteric thrombosis, etc. I am left,

then, with two strong possibilities, to my way of thinking: First, Cushing's ulcer, with peritonitis secondary to it; second, appendicitis with unrecognized and coincidental peritonitis.

Because I prefer diagnoses which are interrelated rather than coincidental, my first guess is Cushing's ulcer, with perforation and generalized peritonitis. My second guess is coincidental appendicitis and peritonitis.

Dr. R. A. Utterback, Neurology: Thank you, Dr. Brintnal, for a very interesting summary and analysis of the problem. Dr. Stamler will give us the autopsy findings at this point, and then we shall come back to the discussion of some specific questions about the case.

Dr. Stamler: This boy did have a perforated duodenal ulcer, as well as a second ulcer which was not perforated. Both were of the acute type which may occur in the duodenum or stomach as complications of various types of neurologic disease, or as complications of neurosurgical procedures or trauma to the brain.

The distention of the abdomen was caused by 3,800 ml. of very dark brownish fluid stained with bile and blood, and there was a fibrinous exudate involving all of the peritoneal surfaces of the abdomen. In addition to this, there was extensive bronchopneumonia, and there was a small amount of residual tumor in the region of the operation.

I might say a little more about the tumor at this time. I mentioned that the tentative diagnosis had been meningioma. When we were finally through examining all of the material from the tumor, we changed that diagnosis to ependymoma. This change in diagnosis may seem to have been a radical one, since we usually think of ependymomas as involving the ventricular system of the brain, or being located deep within the substance of the brain, and certainly not involving the meninges. Ependymomas and other types of glial tumors, however, are found in this location, protruding into the subarachnoid space at the cerebello-pontine angle, and they presumably arise from the medullary velum of the lateral recesses of the fourth ventricle, which terminate in the lateral foramina of Luschka, through which spinal fluid flows into the subarachnoid space. A tumor in this location is very apt to protrude into this space, rather than grow inward into the ventricle.

The slides that we made illustrated the histology of the brain tumor. One of them showed its diagnostic features—cells simulating the appearance of ependymal cells lining the ventricular spaces of the brain. It was not completely developed ependymal tissue, but the elongated cells were lined up in a row. There were a number of these small spaces within the tumor. The next slide showed another characteristic pattern. There, a blood vessel had been cut longitudinally, and columnar cells were lined up in a rather nice palisade about the vessel wall. When a vessel was cut transversely, we could see the so-called rosette or pseudorosette of cells about the periphery of the vessel. Next, we had a section showing the base of the tumor, where it was continuous with the brain stem. There were areas of calcification in the tumor. I don't know why they didn't show up in the x-ray, for they were rather abundant in some places. The next section was from an area of the brain where we found a small amount of residual neoplastic tissue—where the tumor impinged upon the cerebellum.

As for the details of our examination of the abdomen at autopsy, I might comment that all the peritoneal surfaces were covered with shaggy, fibrinous, brown-stained material. The perforated ulcer was located just beyond the pylorus in the first portion of the duodenum on the anterior wall, and the perforation measured 12 mm. in diameter. It was a cleanly punched-out hole in the duodenum. There was a similar acute ulcer on the posterior wall of the duodenum that had eroded into the pancreas, and a blood clot adhered to it, but because of its location that ulcer had not perforated.

A section that we made of the perforated ulcer showed characteristics of an acute ulcer, rather than of a chronic one. There was massive coagulation necrosis of the tissue without any very pronounced inflammatory response. Thrombosis of vessels has been emphasized as a factor in causing ischemia and necrosis, and consequent perforation. There were thrombosed vessels in the necrotic portion, but in the viable tissue the vessels were perfectly normal in appearance. There was no evidence there that thrombosis *per se* had been the causative factor in ulcer formation.

The final slide showed the character of the peritoneal exudate upon the surface of the large bowel. There was a thick layer of impacted fibrin and degenerating blood, with minimal cellular inflammatory reaction. There was not any of the intense cellular response which we ordinarily see in acute inflammation due to infection.

Dr. Utterback: Obviously, it is opportune that we discuss the manner of production of the so-called "Cushing" ulcer. In this case, the brain stem was of necessity traumatized, and following the excision of the intracranial tumor, some duodenal ulcers formed. Dr. Meyers, would you speak about this relationship and comment about the meaning of "Cushing's" ulcer?

Dr. Robert L. Meyers, Neurosurgery: First, I should like to compliment Dr. Brintnal on his excellent analysis of this case.

At operation, a well-circumscribed tumor as large and as long as a man's thumb was identified lying ventrolaterally to the right side of the medulla oblongata. It compressed the pons and indented it, but apparently it had not invaded it. The 7th, 8th, 9th, 10th, 11th and 12th cranial nerves were also compressed by the tumor mass, but were not

invaded. This finding eliminated neurilemma and acoustic neurinoma.

By painstaking dissection, the nerves were freed without injury, and the tumor was delineated from the lower two-thirds of its bed. At the anterior portion of the tumor, we then recognized some cystic portions in the neighborhood of the inferior olive and pons. This finding in itself appeared to us incompatible with meningioma, and prompted us to seek help from the Pathology Department. A frozen section was therefore prepared, for if it should be discovered that we were dealing with a benign tumor we would make every effort to cure the lesion, even at the expense of an immediate risk to the patient's life. On the other hand, if as we had begun to suspect, we were confronted with an infiltrating glioma, we should be inclined to a more conservative course of action, since the tumor could not be cured in any case.

As has already been remarked, there was some difficulty in achieving a secure histologic identification of the tissue. We therefore resolved to give the patient the benefit of the doubt, and undertook a complete removal of the tumor. The superior portion of the lesion appeared to be invading the cerebellum above, but we could not be certain that we were not dealing with mere gliotic reaction to the presence of a tumor. Therefore, a small portion of the lateral hemisphere of the cerebellum was sacrificed. This entailed no serious physiologic deficit.

As has already been stated, the patient did well during the first 24 to 36 hours after the operation. He then began to exhibit the clinical picture that has been described by Dr. Brintnal. As the findings of the second and third days materialized, we neurosurgeons became more and more thoroughly convinced that our problem was not explicable simply in terms of postoperative changes in the patient's intracranial structures. We then expressed the opinion that an intra-abdominal condition was present, possibly secondary to the intracranial lesion. From that point on, there was considerable difference of opinion about what should be done for the patient. The consultants from the surgical service were not inclined to recommend exploration.

The findings at autopsy indicate that the patient might have had a different course if surgical exploration of the abdomen had been carried out. When we again have occasion to treat such a patient, we must remember this case.

As to the matter of intra-abdominal lesions of the type described in this instance—namely, duodenal ulcers with perforation, referred to several times today as "Cushing's ulcers"—I think it well to draw attention to the fact that this phenomenon was described in the mid-nineteenth century by Professor Rokitansky, of the University of Vienna. He noted a relationship between cerebral lesions of the hypothalamus and the picture of duodenal ulcer. Dr. Cushing described several such cases in 1931.

It appears that lesions located anywhere in or close to the midline of the brain, from the forebrain down to the upper regions of the cervical cord, are capable of producing peptic ulcers of the esophagus, stomach or duodenum. The mechanism by which lesions of the central axis lead to the production of peptic ulcer is not well understood. Yesterday, we had the privilege of hearing Dr. Dragstedt elaborate upon his theory concerning the neurogenic origin of the duodenal and the humoral origin of gastric ulcers. There have been other theories expressed as to the origin of such ulcers. For example, Rolf Lium has carried on experiments in the dog in which smooth muscle spasm of the viscera consequent to a stimulation of the sympathetic neural outflow has led to a mechanical constriction of the blood vessels crossing through the smooth musculature. The ischemia secondary to these changes is considered sufficient to lay the basis for devitalization of the mucosa, and thus to a breakdown of the viscera by digestive juices. This is an attractive hypothesis, and it serves to remind us that the pathogenetic issues are at present far from settled.

In brief, lesions located in the orbital gyri of the telencephalon, the median forebrain bundle (which course is backwards from olfactory tuberculum to the hypothalamus), the hypothalamus itself, the ventral pretectal region, the midbrain, the medulla and the cervical cord apparently can initiate certain vagotonic and humoral changes that eventually lead to the development of ulcers. Although this does not provide us with any satisfying understanding of the pathogenesis of neurogenic ulcers of the gastrointestinal tract, it widens the scope of our consideration well beyond the region of the hypothalamus, which both Rokitansky and Cushing regarded as chiefly responsible.

Dr. Frederick D. Staab, Department of Surgery, Iowa City VA Hospital: Are these lesions seen in head trauma?

Dr. Utterback: Yes.

May I ask one of the questions that Dr. Brintnal brought up in his discussion? The films of the abdomen did not reveal air trapped in the peritoneum, and I am sure that fact led to considerable discussion while the patient was still alive. Dr. Gillies, would you tell us the percentage of cases of intestinal perforation in which free air can be identified in the peritoneal cavity by x-ray?

Dr. Gillies: I think I shall have to agree with Dr. Brintnal, who has said that in about 20 per cent of cases it cannot.

Dr. R. C. Hickey, Surgery: What was the radiologic interpretation of the flat plate of the abdomen? Didn't that roentgenogram suggest the presence of a considerable amount of free fluid?

Dr. Gillies: I don't think so.

Dr. Utterback: Dr. Perret studied this problem not long ago and gathered some statistics on it. I should like to ask that he make some comments upon this matter of duodenal ulcers resulting from intracranial lesions.

Dr. George E. Perret, Neurosurgery: Well, let me answer Dr. Staab's question first. Following head and spinal-cord injuries, we occasionally see gastrointestinal-tract bleeding and ulceration. We see them also following burns and some types of operations which don't necessarily involve the central nervous system. In a review which was done here in 1950-1951, we found that during an 18-month period, 203 intracranial operations were done, and in those 203 patients we subsequently observed 11 upper gastrointestinal tract complications—an incidence of 5.4 per cent. In other years, we have not had such a high incidence of complications. Seasonal variations and geographical concentrations have been observed by others.

Dr. Utterback: What data are there on gastric secretions in this situation, and second, what prophylactic measures can be taken?

Dr. Perret: In a series of 17 psychotic patients—individuals whom we treated here by open bilateral prefrontal lobotomy in 1950-1951—gastric acidity and fresh peptic activity determinations were carried out preoperatively, and one week and three months postoperatively. We found no significant changes following interruption of the anterior frontal regions from the rest of the brain in any of the studied gastric-secretary functions. On the other hand, Davis recently reported that in a series of 10 control patients, 10 patients with brain tumor and increased intracranial pressure, and 10 patients with cerebral disease but no tumor, the patients with brain tumors had higher preoperative gastric acidity than those in the two other groups. Following operation, however, the brain-tumor patients had the same amount of acid in their gastric secretions as did the control groups. He also stated that the ulcerations did not occur preoperatively in the majority of them, but occurred postoperaively, so that the amount of acid in the stomach may not have been directly responsible for the formation of ulcers. He also found that uropepsinogen was the same in any of his patients preoperatively and postoperatively in either the control or the tumor groups.

Dr. E. E. Mason, Surgery: How many of these complications were observed antemortem, and how many postmortem?

Dr. Perret: Of the 11 patients with gastrointestinal tract complications following intracranial surgery in our series of 1950-1951, eight died after repeated massive hematemesis. They obviously bled before they died, and we know that they had complications. The other three also bled, but they didn't die. The history of only two of the 11 patients suggested previous gastric dysfunction. The remainder of the patients had presented no history suggestive of peptic ulcer.

Dr. Mason: Were any of them operated upon for their ulcers?

Dr. Perret: I think Dr. Hickey operated upon one or two such patients.

Dr. Meyers: I should like to know whether there is anything prophylactic that we can do for these patients.

Dr. Perret: Banthine and Pro-Banthine may be of value if administered preoperatively or immediately postoperatively in suspected lesions involving the brain stem.

Dr. Brintnal: When this diagnosis can be made, the surgeon operating upon the patient for perforation of such duodenal ulcers should seriously consider doing a vagotomy, in addition to closure or local resection of the area of perforation, in the hope that he may thus prevent recurrent ulceration. I understand that frequently these ulcers are recurrent and multiple, and at various bowel levels.

Dr. Perret: I should like to answer Dr. Brintnal right here! From a purely experimental point of view, I am dubious about the beneficial effects of vagotomy. In animals, we have found that most inhibitory gastric functions were transmitted over sympathetic and spinal-cord pathways. I am afraid that following vagotomy the inhibitory influence on gastric function will be increased, and may possibly lead to erosion of the mucosa by stagnating acid.

Dr. Mason: Perhaps we should combine a drainage operation (pylorotomy) with vagotomy, for the difficulty with vagotomy—from what Dr. Dragstedt tells us—is that it causes atony of the stomach and spasm of the pylorus, and thus the secondary results are retention and distention of the antrum, with a release of gastrin and an increase in secretions on that basis.

There is experimental evidence showing an increased secretion of gastric juice following gastroenterostomy. This is thought to be due to a reflux of alkaline juice back through the antrum. The antrum produces two hormones with opposed effects on gastric secretion. The pH of antral contents is an important factor in determining whether gastrin or an inhibitor is formed. This is a feed-back arrangement, and with a gastroenterostomy supplying alkaline juices to the antrum, the stomach is stimulated to secrete even more acid.

Dr. Lillehei performed a series of experiments on dogs which demonstrated that celiac ganglionectomy plus superior and inferior mesenteric ganglionectomy would cause severe ulcerations all up and down the gastrointestinal tract. It seems to me that such an operation is contraindicated, but a vagotomy perhaps should be considered. Certainly, it is obvious that we need new effort

in diagnosis and treatment, and also some more information as to the true cause of Cushing's ulcer.

Dr. Utterback: Is there any diagnostic procedure that might have been carried out in this patient that would have given us information? Dr. Brintnal, do you think a paracentesis, for example, might have been a reasonable and illuminating test?

Dr. Brintnal: In some instances where we have suspected peritoneal fluid of one sort or another, we have put a needle into the peritoneal cavity in the hope of determining the type of fluid. Sometimes we have been looking for blood, and sometimes for fluid with a high pancreatic enzyme content. I think the procedure would have been reasonable, but I still doubt that I would have thought of doing it as a diagnostic measure. If I were concerned to such a degree, I would choose laparotomy as a diagnostic procedure.

SUMMARY OF NECROPSY FINDINGS

At necropsy, the abdomen was distended by 3,800 ml. of bile- and blood-stained fluid, and there was a generalized accompanying fibrinous peritonitis. These findings were the result of an acute peptic ulcer of the anterior duodenal wall, with a perforation 13 mm. in diameter. A second acute ulcer, with a large blood clot adherent to its base, was found on the posterior duodenal wall.

Fragments of residual tumor were found in the margins of the operative wound of the cerebello-pontine angle. The neoplasm was classified as an ependymoma. The exact point of origin of the tumor could not be determined, although such neoplasms in this location are generally considered to arise from the medullary velum of the lateral recess of the fourth ventricle. The operative wound was filled with a hematoma, but there was no evidence of excessive bleeding or unusual trauma to the neighboring brain tissue.

Death had been due to perforation of an acute duodenal ulcer, with generalized acute peritonitis.

Incidental findings included early but rather extensive bilateral bronchopneumonia, acute ulcerative esophagitis and acute hemorrhagic cystitis.

ANATOMIC DIAGNOSES

Ependymoma, moderately well differentiated, cerebello-pontine angle, postoperative

Peptic ulcer, acute, perforated, anterior duodenum, first portion

Peptic ulcer, acute, posterior duodenum, first portion

Peritonitis, generalized, acute

Bronchopneumonia, bilateral

Esophagitis, acute, ulcerative

Cystitis, acute hemorrhagic

Tracheotomy, postoperative

Coming Meetings

Out of State

July 1-3	**Summer Conference, Hawaii Medical Association.** Honolulu
July 1-4	**British Tuberculosis Association.** Royal Festival Hall, London
July 1-5	**Eastern Regional Meeting, International College of Surgeons.** Equinox House, Manchester, Vt.
July 1-24	**Summer School of Alcohol Studies (Yale University).** New Haven
July 1-31	**Mycology.** Duke University School of Medicine, Durham, North Carolina
July 2-7	**Regional Meeting, American College of Surgeons.** Concert Hall, Stockholm, Sweden
July 4-6	**Intermountain Pediatric Society.** Sun Valley, Idaho
July 6-9	**Annual Convention, Idaho State Medical Association.** Sun Valley, Idaho
July 6-12	**Seventh International Cancer Congress.** Royal Festival Hall, London
July 7-11	**Sixth Annual Symposium for GP's on Tuberculosis and Other Chronic Pulmonary Diseases.** Trudeau Foundation and Ray Brook State Hospital, Saranac Lake and Ray Brook, New York
July 7-18	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Neuromuscular Diseases of Children, With Special Emphasis on Cerebral Palsy.** Cook County Graduate School of Medicine, Chicago
July 7-18	**Review Course in General Medicine.** N.Y.U., N.Y.C.
July 7-19	**Southern Pediatric Seminar.** Saluda, North Carolina
July 7-19	**Surgery (International College of Surgeons).** Cook County Graduate School of Medicine, Chicago
July 7-Aug. 1	**Thyroid Disease and the Use of Radioactive Iodine (Harvard Medical School).** Massachusetts General and Beth Israel Hospitals, Boston
July 9-10	**Rocky Mountain Cancer Conference.** Shirley-Savoy Hotel, Denver
July 10-12	**Dermatology for GP's.** U. of Colorado Med. Center and Fitzsimons Army Hospital, Denver
July 10-18	**British Medical Association.** Birmingham, England
July 11-13	**European Society of Cardiovascular Surgery.** Dusseldorf, Germany
July 12-25	**Rhinoplasty and Otoplasty (Columbia U. Coll. of Phys. & Surg.).** Mt. Sinai Hospital, New York City
July 13	**Anesthesiology.** University of Virginia Hospital, Charlottesville
July 15-21	**Medical Women's International Association.** Bedford College, Regents Park, London
July 16-18	**Auscultation of the Heart.** N.Y.U., N.Y.C.
July 16-23	**International Union of Biological Sciences.** London
July 17-19	**Obstetrics & Gynecology.** U.C.L.A., Los Angeles
July 18-19	**International Professional Association of Obstetricians and Gynecologists.** Brussels, Belgium
July 21-24	**Summer Clinic, New Mexico Academy of General Practice.** Ruidosa, N.M.
July 21-24	**Ophthalmology.** U. of Colorado Med. Center, Denver
July 21-Aug. 1	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
July 21-Aug. 1	**Technics of Surgery.** U.C.L.A., Los Angeles
July 21-Aug. 2	**Course I, Technic in Gen. Surgery.** Cook County Graduate School of Medicine, Chicago

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ISMS SENIOR DAY

For the fourth consecutive year, representatives of the Iowa State Medical Society and its Auxiliary met with graduating seniors of the S.U.I. College of Medicine, and their wives and fiancées, in Iowa City on May 17.

The afternoon program consisted of talks on the function of organized medicine and many of the aspects of private practice which will be of immediate concern to the newly graduated doctors as soon as they have completed their year of internship. Dr. R. N. Larimer, of Sioux City, one of Iowa's delegates to the AMA, outlined the functions of county, state and national organizations of doctors, and pointed out some of the ways in which private practitioners find it worthwhile to maintain membership in them.

Mrs. H. C. Merillat, of Des Moines, president of the Woman's Auxiliary, listed some of the projects —selling TODAY'S HEALTH subscriptions, fund raising for the AMEF, nurse recruitment, and lobbying—by which her group promotes the objectives of medicine.

In discussing "The Meaning of Public Relations," Dr. William M. Sproul, of Des Moines, said that he thinks individual doctors accomplish more, either for good or ill, as regards what the public thinks of our profession, than do the programs that are instituted by organizations of doctors. About the dissemination of medical information, he declared that the more the public is told, the better off it will be—provided that what it is told is the truth.

Dr. F. C. Coleman, of Des Moines, another of Iowa's AMA delegates and a man who has a major share in organized medicine's legislative activities at both the national and the state level, was the next speaker, and his topic was "The Scope of Medicine's Legislative Problem." Then Dr. Tom D. Throckmorton, of Des Moines, executive vice-president of Blue Shield, talked on "Prepayment Insurance and the Practice of Medicine."

Dr. Samuel P. Leinbach, of Belmond, a member of the ISMS Board of Trustees, undertook to give the graduating seniors some "do's" and "don'ts" to follow when they reach the point of opening their practices. Rather than recommending a particular type of location or kind of association, he enumerated the advantages to be found and warned of the difficulties that must be avoided in each situation.

In the evening, the students and their guests were entertained by the State Medical Society at a dinner and dance. The banquet address was delivered by Dr. Walter D. Abbott, the ISMS president.

Besides hearing the more or less formal talks, the students had opportunities to question private practitioners about various aspects of organized medicine and the technics of day-to-day work with patients. Thus, as Dean Nelson and the members of his faculty have assured the Society on numerous occasions, the students profit considerably from Senior Day, and appreciate the trouble and expense which the Society and the individual speakers incur each year in conducting it.

COOPERATION IN CHILD PLACEMENT

At Iowa City on May 26 and 27, a step was taken toward a meeting of minds on technics for placing infants available for adoption. The groups represented at the conference included doctors, lawyers, hospital administrators, clergymen and social workers, and the speakers included Norman B. Nelson, M.D., dean of the S.U.I. College of Medicine, Professor Charles Davison, of the S.U.I. Law School, Mr. Spencer Crooks, director of the Children's Home Society of the State of Washington, Professor John Whiting, a cultural anthropologist at Harvard University, John A. Lichty, M.D., a pediatrician at the University of Colorado Medical Center, and Miss Ursula Gallagher, a consultant at the Children's Bureau of the HEW Department, in Washington, D. C.

The problem of placing babies permanently with adults other than their natural parents has many facets. First, since a considerable share of such infants are the products of illegitimate pregnancies, and since illegitimately pregnant girls are secretive about their condition, prenatal care is frequently inadequate. Somehow or other, more of these girls must be encouraged to come to doctors' offices as early and as regularly as do legitimately pregnant women. Next, confinement and delivery must be satisfactorily arranged. Sometimes there is a financial difficulty involved, in addition to the desire for secrecy. Then, the girl needs altogether impartial counsel in deciding whether or not to keep her baby, and to whom she should release it if she is willing to give it up.

Principally because couples seeking to adopt children outnumber the babies available for adoption, direct placements are made and the mothers are permitted to know to whom their babies have been given. Occasionally, that sort of arrangement results in emotional insecurity for the child, and sometimes the natural mother tries to reclaim the youngster. In such cases, everyone concerned is involved in a painful litigation.

At the meeting in Iowa City, it was generally

agreed that the primary need is for better communication among the people who most frequently are called upon for advice or for a more concrete type of help in these situations. Principally, it was decided, doctors, lawyers and clergymen need to find out what social agencies are available in their particular part of the state to advise and assist illegitimately pregnant girls, and to place their babies for adoption when and if the girls decide to release them.

Some other courses of action were rather thoroughly discussed. One of them was the need for a method—perhaps a program of public education—by which a larger proportion of illegitimately pregnant girls might be brought to doctors' offices for prenatal care.

Another of them was the proposal that the "Model Adoption Law" be proposed to the Iowa General Assembly. It is a statute which would require that all children to be placed for adoption must be released by their mothers (or by their mothers and fathers) to social agencies, rather than to the couples who are to rear them. These releases would be virtually irrevocable. Then, there could be no subsequent suits for custody between the natural mother and the adoptive parents; indeed the natural mother and the adoptive parents would almost certainly never discover one another's identity.

DOCTORS AND AGING

If there is any one single division of medicine in which all doctors should take a vital interest, it is gerontology. Each of us ages daily. As an individual—not as a doctor—every physician may be sure of meeting the problems of the elder citizen in himself, unless some fatal accident befalls him prematurely. Our reluctance about thinking of them while we are in our prime will not delay the inexorable march of time.

Let us pause briefly to take a look at our senior population. It is true that the numbers of such people are increasing, though that growth is less rapid than the steady lengthening of the average life span might lead us to believe. Actually, youngsters who have survived their infancy are destined to live little longer than were the youngsters of 50 years ago. That fact is substantiated by the finding that 82 per cent of illnesses causing death occur in persons aged 45 years or older. Yet, it is undeniable that the aged constitute a very large group.

There are four main sorts of illnesses common among elderly people. The first, diseases of the blood vessels, accounts for over a million deaths a year. The second, cancer, takes nearly a quarter of a million persons annually. Third, are arthritis and rheumatism. Though not fatal in themselves, these problems produce disabilities in a huge number of people. Fourth, comes mental illness; its implications are obvious.

This partial list of the pathologies common among our senior citizens suggests concomitant problems —social, spiritual and economic. These, no less than the medical difficulties, must be faced and solved if we are to give adequate care to these people.

The economic side is interesting, for it relates to hospitalization and the provision of medical care. In 1952, the total non-institutionalized aged population was 15,000,000, and 26.3 per cent of those people carried health insurance. In 1955 the number was larger, but the percentage covered had risen to 39 per cent. That increase is encouraging, and though it is forecast that the percentage will never exceed 50, since many sub-groups do not wish to carry insurance—e.g., the 2,500,000 persons covered by Old Age Assistance, the group cared for by the V-A, and the well-to-do—there are some trends that are favorably affecting the insurance picture. For instance, the Securities and Exchange Commission reports that the pension funds of American corporations have grown 16 per cent in 1957, and now have assets of $19,300,000,000. The existence of such reserves and the virtual certainty that they will continue to grow are indications that in the future there will be proportionally more elderly people able to finance their own health care, either through insurance or otherwise.

Special housing for the aged is receiving prime attention from the government and from interested individuals. Special inducements have been offered architects to design functional quarters for senior citizens.

To doctors, the most significant effort being put forth on behalf of elderly people is coming from our own AMA. It has an active Committee on Aging, and along with the American Dental Association, the American Hospital Association and the American Nursing Home Association, it has formed the "Joint Council to Improve the Health Care of the Aged." Within the AMA, the Committee on Aging is holding regional meetings to foster local and state interest in the various problems, so that solutions for them can be worked out at the grass roots.

As for the exclusively medical aspects of aging, it can be pointed out that medical researchers are learning many basic things which seem to foreshadow success in the fight against cancer. Advances are being achieved in the field of mental health. Discoveries are likewise being made in the field of the heart and the circulation. For example, a group of investigators have applied some basic rules and have found that it may be possible to increase the percentage of creditable rehabilitations among stroke patients from 20 per cent to 86 per cent. The U.S.P.H.S. has just published a book on this subject entitled STRIKE BACK AT STROKES. It was due for release during the latter part of June.

Thus, doctor, the problems of the aged are ones

in which you should take both a personal and a professional interest. The aged are increasing in number, but it is unlikely that they will become so numerous as to make you despair of doing anything for them, and a great deal is being accomplished by the AMA and other groups interested in providing for their social, economic and medical needs. Let's inform ourselves about what is being done, and let's assume leadership in this work at the community level!

THE EXODUS OF YOUNG IOWA M.D.'S

From the list published in the quarterly bulletin of the S.U.I. College of Medicine, we learn that of the 105 new doctors of medicine graduated at Iowa City last month, no more than 19 are to serve their year of internship within the state. There may be a remediable difficulty reflected by those figures.

Principally, Iowa taxpayers maintain the S.U.I. College of Medicine, just as they support the rest of their public school system, for the purpose of educating their sons and daughters and providing them a means of earning their future livelihood. But the taxpayers also are interested in training men and women to provide essential services right here in this state. Much though they respect the citizens of Illinois, Michigan, California and the other commonwealths, they do not maintain their schools principally to supply the country at large with doctors, lawyers, teachers, engineers, agricultural experts and businessmen.

Of the four-fifths of Iowa-trained M.D.'s who are leaving the state for their internships, it is scarcely reasonable to suppose that very many will return to begin practice in Iowa. Physicians are in demand throughout the country, and since young doctors in most instances have families by the time they finish interning, if not before, the expenses incident to their moving back here constitute a considerable impediment. Thus, it appears that Iowa is supplying highly trained personnel to meet the needs of other states, rather than her own.

All that we can do at the moment is to call attention to the problem, for we have no surefire solution to propose. Perhaps the creation of more Iowa internships is a possibility, or perhaps some financial inducements must be offered so as to get S.U.I. graduates to return in larger numbers. Senior Day at Iowa City is a fine idea, and preceptorships may show senior students some of the attractions of rural practice in Iowa, but apparently they aren't enough.

Attend the
1959 ISMS ANNUAL MEETING
April 19-22
Des Moines

ELECTION-YEAR SOCIAL-SECURITY EXTENSIONS

Every year—but with special fervor every other year—many congressmen propose increases in social security benefits and reductions in eligibility requirements. The reason for their greater efforts in even-numbered years is, of course, the approach of the biennial elections. Since January, a hundred bills have poured into the hoppers, most of them anything but modest. For example, several would lower the retirement ages for men and women from 65 and 62, respectively, to 60. Others would step up payments by 10 per cent across-the-board. Rep. Forand's bill, with which all of us are familiar, would constitute the most egregious giveaway of public funds.

In addition to their other faults, these proposals would further undermine the already shaky stability of the Social Security System, on which all wage and salary earners are depending for at least a share of their income after retirement. During the 12 months which ended on June 30, 1957, years ahead of schedule, disbursements by OASI exceeded tax receipts, and the deficit was made good only by means of the interest that the $22,000,000,000 accumulation from previous years had earned. In the current fiscal year, even taking the earnings of that accumulation into account, OASI is likely to run $375,000,000 into the red. Next fiscal year, without any of the proposed liberalizations, the deficit will be twice that size.

A new advisory council is at work assessing the financial status and prospects of the Social Security System, and its report should be available to Congress within the next year. Properly, then, all modifications in the System ought, at least, to be postponed until that assessment has appeared.

Since Easter, when the members of Congress last had an opportunity to assess the attitudes of their constituents at first hand, a conservative trend has begun as regards government expenditures. The provision that has been made for helping recession-hit states extend unemployment compensation is far less sizable than had earlier seemed likely. Smaller amounts are being voted for job-creating public works. And apparently there are to be no major tax cuts.

Since most of that change can be attributed to the influence of voters who took the trouble to tell their congressmen their opinions, it seems likely that the lawmakers might heed our asking that they postpone further extensions of Social Security for a year at least.

Won't you please take a half hour to write three letters—one each to your senators and the third to your representative—so as to make your influence felt?

COUNTY MEDICAL SOCIETY OFFICERS

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Humboldt	M. L. Northup, Humboldt	Nelle Schultz, Humboldt	I. T. Schultz, Humboldt
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Kossuth	M. G. Bourne, Algona	Paul Warner, Wesley	M. G. Bourne, Algona
Lee	H. B. Helling, Ft. Madison	Sebastian Ambery, Keokuk	G. H. Ashline, Keokuk
			G. C. McGinnis, Ft. Madison
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Lyon	H. H. Gessford, George	S. H. Cook, Rock Rapids	S. H. Cook, Rock Rapids
Madison	J. E. Evans, Winterset	R. W. Carson, Winterset	J. E. Evans, Winterset
Mahaska	F. O. W. Voigt, Oskaloosa	D. K. Campbell, Oskaloosa	R. L. Alberti, Oskaloosa
Marion	D. S. Burbank, Pleasantville	D. H. Hake, Knoxville	D. H. Hake, Knoxville
Marshall	E. L. Keyser, Marshalltown	H. E. Sauer, Marshalltown	R. C. Carpenter, Marshalltown
Mills	W. A. DeYoung, Glenwood	M. L. Scheffel, Malvern	M. L. Scheffel, Malvern
Mitchell			T. E. Blong, Stacyville
Monona	L. A. Gaukel, Onawa	W. P. Garred, Onawa	L. A. Gaukel, Onawa
Monroe	R. A. Smith, Albia	D. N. Orelup, Albia	D. N. Orelup, Albia
Montgomery	J. D. Fickel, Red Oak	F. A. Hansen, Red Oak	E. L. Croxdale, Villisca
Muscatine	Samuel Bluhm, Muscatine	J. H. Spencer, Muscatine	K. E. Wilcox, Muscatine
O'Brien	A. D. Smith, Primghar	L. H. Mattice, Sheldon	E. B. Getty, Primghar
Osceola	J. H. Thomas, Sibley	F. B. O'Leary, Sibley	F. M. Rizzo, Sibley
Page	H. S. Frenkel, Clarinda	K. V. Jensen, Clarinda	K. J. Gee, Shenandoah
Palo Alto	H. L. Brereton, Emmetsburg	C. C. Moore, Emmetsburg	H. L. Brereton, Emmetsburg
Plymouth	J. P. Trotzig, Akron	F. C. Bendixen, Le Mars	R. L. Fisch, LeMars
Pocahontas	C. L. Jones, Gilmore City	H. L. Pitluck, Laurens	C. L. Jones, Gilmore City
Polk	A. B. Phillips, Des Moines	D. O. Newland, Des Moines	M. T. Bates, Des Moines
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Ringgold	D. E. Mitchell, Mount Ayr	J. W. Hill, Mount Ayr	H. J. Hausheer, Mt. Ayr
Sac	John Hubiak, Odebolt	Manly Michaelson, Lytton	J. W. Gauger, Early
Scott	R. A. Berger, Davenport	A. B. Hendricks, Davenport	Erling Larson, Davenport
Shelby	J. H. Spearing, Harlan	L. V. Larsen, Harlan	J. H. Spearing, Harlan
Sioux	C. D. Oelrich, Sioux Center	A. L. McGilvra, Sioux Center	M. O. Larson, Hawarden
Story	E. R. Peterson, Ames	J. F. Bacon, Ames	J. D. Conner, Nevada
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Taylor	R. W. Boulden, Lenox	G. W. Rimel, Bedford	R. W. Boulden, Lenox
Union	A. F. Watts, Creston	H. J. Peggs, Creston	H. J. Peggs, Creston
Van Buren	Kiyoshi Furumoto, Keosauqua	J. T. Worrell, Keosauqua	Kiyoshi Furumoto, Keosauqua
Wapello	K. E. Lister, Ottumwa	R. A. Hastings, Ottumwa	C. R. Phelps, Ottumwa
Warren	L. W. Porter, Indianola	R. C. McGeehon, Indianola	C. A. Trueblood, Indianola
Washington	C. A. Boice, Washington	G. J. Nemmers, Washington	G. E. Montgomery, Washington
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Winneshiek	L. E. Larson, Decorah	J. W. Holtey, Ossian	E. F. Hagen, Decorah
Woodbury	P. M. Cmeyla, Sioux City	J. P. Tiedeman, Sioux City	D. B. Blume, Sioux City
Worth	R. L. Olson, Northwood	W. G. McAllister, Manly	C. T. Bergen, Northwood
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President's Page

If the Iowa State Medical Society is to function effectively, each of its members must know what problems it is attempting to deal with, and precisely what its officers and its committees and staff members are planning to do about them. Indeed it is not too much to say that their success in achieving the objectives of organized medicine will always be directly proportional to the knowledgeability of doctors throughout the state.

In addition, by keeping informed about the proposals that have been made and the action that is being contemplated, every physician can equip himself to give careful consideration to the Society's problems and to make suggestions of his own. Please accept my word for it—each of us whom you have chosen to conduct your business will welcome your ideas. Above all, we are anxious to do your will.

It may seem that our state headquarters makes too many demands upon your time. Last year, for example, it sent out 10 news bulletins, 10 legislative bulletins, 5 Public Relations Committee mailings and 3 deputy councilor mailings, in addition to the organizational information it disseminated in each issue of the JOURNAL. *But you may feel sure that each of those dispatches was something that your officers thought highly important to medicine in general and to you in particular.*

All of us doctors are busy, but surely we are not so engrossed that we can't pause to acquaint ourselves with the current threats not only to our profession but to all else that we hold dear in America.

Let's take time to explore these problems, so that when dentists, lawyers, veterinarians, nurses, hospital trustees, business acquaintances, patients and our other friends ask us what the AMA and the ISMS are doing about a particular matter, and why they are doing it, we can proudly support our God-given heritage, and answer them fully and accurately.



President

POSTGRADUATE STUDY CREDITS

All Academy members are well aware that they must complete 150 hours of postgraduate study before they can be reelected for another three years, and they know that 50 of those hours must be in Category I. But from the letters and other inquiries that the state chapter office receives, it is apparent that many of them are confused about which courses entitle them to Category I credits.

Actually the distinction is a simple one to make, for the program of every course that has qualified for Category I credit bears an announcement to that effect. Besides, that announcement always tells how many Category I credit hours the AAGP members who attend all of it can claim. That statement on the program is one of the requirements that the AAGP makes of the sponsor.

If the program does not bear such an announcement, then the course must be considered as entitling AAGP members to no more than Category II credit.

Members have difficulty in understanding why certain refresher courses or postgraduate conferences are accepted for Category I credit and why others are not. The sponsors of many courses and meetings have the same trouble. The AAGP Commission on Education has set up certain requirements that must be fulfilled, and perhaps a few quotations from the manual on postgraduate education will help to clarify the matter. All courses in both categories must be of high educational, ethical and medical standards.

CATEGORY I

"Any postgraduate course given by an accredited medical school or recognized postgraduate medical school will be considered for Category I credit if it is submitted in advance to the State Chapter committee on education for action under the established policy for classifying courses."

"Any course sponsored by the American Academy of General Practice, or by any of its constituent state or territorial chapters, or by a medical school administrator, approved in advance by the regional advisor of the Commission on Education, and processed by AAGP or its constituent state or territorial chapter."

"The Annual Scientific Assembly of the American Academy of General Practice. Invitational Scientific Congress of the American Academy of General Practice."

"The Annual Scientific Assembly of each state chapter, providing it be approved in advance by the regional advisor of the Commission on Education."

In addition to refresher courses or postgraduate conferences, Category I credit is allowed for: "The publication of a scientific paper by a member in a state or national medical journal, or the presentation of any original scientific paper to a medical audience at the county level or above, or the preparation and presentation of a scientific exhibit at a medical meeting at the state level or above receive 10 hours' credit. Scheduled teaching of medical students through a medical school shall receive credit for each hour of active teaching."

"Sponsorship by the AAGP or any of its constituent state or territorial chapters shall be defined as taking an ACTIVE part and having an AAGP member on the program committee of the course being offered. This committee member must be one who is on the AAGP national, regional, territorial, state or local chapter program committee or education committee. It must include active participation in and planning of the course offered. AAGP sponsorship is not to be confused with mere endorsement or approval of the quality of the course being given."

"Sponsorship can be authorized only by the Board of Directors of the state or territorial chapter, and official notification thereof given in writing to the American Academy regional advisor through the Chairman of the Committee (or commission) on Education of the state or territorial chapter."

"All advertisements, announcements and programs shall bear in bold type and in a conspicuous position the statement that the course in question is sponsored by the approporiate state or territorial chapter of the American Academy of General Practice."

CATEGORY II

"The scientific meetings of the American Medical Association."

"Local and state medical society regular annual scientific meetings."

"Hospital staff scientific conferences and clinical pathologic conferences."

"Postgraduate seminars and assemblies not otherwise covered in Category I."

"Any organization desiring to state on its official announcement of a postgraduate program that members of the AAGP will receive a specified number of hours' credit, under either category, must have written authorization from the regional representative of the Commission on Education. A statement from a local or state chapter of the American Academy is not sufficient—it must be authorized by the Commission on Education through one of its regional advisors. Furthermore, such announcement must clearly specify the category of credit allowed and the maximum number of hours available in that category."

The State Chapter office, 911 Bankers Trust Building, Des Moines 9, welcomes any and all questions regarding postgraduate study credits.



MISCONCEPTIONS ABOUT PSYCHIATRIC PROGNOSIS

Jean Arnold, M.D., Coralville

Perspective is difficult to attain in any field, and it is particularly hard to get in an area that is outside of one's immediate interest and special concern. As physicians, we often fail to apply our knowledge of healing when we undertake a prognosis in the realm of mental disease, for the prejudices and attitudes about mental illness which we acquired in our development have remained unchanged. Patients, in general, are similarly inclined to think of mental illness and the chances of a patient's recovering from it as enigmas which their experience gives them no help in solving.

For example, let us say that a patient has contracted influenza and is being treated for it by his physician. The patient is naturally anxious to be well again, but he does not ask his doctor to reassure him that, having recovered from the current bout, he will *never* get influenza again. Rather, he accepts the fact that physical illnesses may recur. Later, if he does have influenza again, neither he nor his family is unduly upset.

Patients and their families, and indeed many physicians, take quite a different attitude toward emotional illness, however. If a patient has responded quite well to treatment for a depression or a psychoneurosis, he and his family, and sometimes his physician, are inclined to expect that the cure should be a lasting one. Of course there is no more of a basis for such an expectation in the field of psychiatry than there is in the field of medicine. Yet, when a patient has a recurrence of a mental illness, the referring physician may be inclined to say, "Well, psychiatrists can't help him," or "If a patient develops a nervous illness, he'll get over it by himself or not at all." Both of these conclusions are incorrect, and they reflect an unfortunate misunderstanding of psychiatric treatment.

The goals in psychiatric treatment vary, depending upon the individual diagnosis and the individual patient. Treatment may be instituted in an attempt to ameliorate symptoms, to help the individual to live with his symptoms, or to change character traits through deep and prolonged psychotherapy. Psychiatrists employ different technics for the accomplishment of these various purposes.

Some types of mental illness produce serious and at times chronic disorganization of personality. In such patients, it is possible that psychiatric treatment may continue, off and on, over a period of many years. In this type of situation, it is possible that chemical and supportive treatment, as well as spaced electroshock treatments, may be given. The goal in such therapy may very well be that of keeping the patient out of a state hospital and helping him to maintain at least a marginal adjustment in society. Here again, the referring physician may be inclined to criticize his psychiatric colleague, and feel that since the patient is not getting well, the treatment is a waste of time for him and a waste of money for his family. That same physician, however, may be giving markedly similar treatment to patients with diabetes, rheumatoid arthritis, cardiac disease or hypertension, to name but a few—patients who return to see him month after month over a period of years. Justifiedly, such a physician feels that he is helping these patients, just as the psychiatrist feels that he is helping chronically disturbed individuals through his palliative technics.

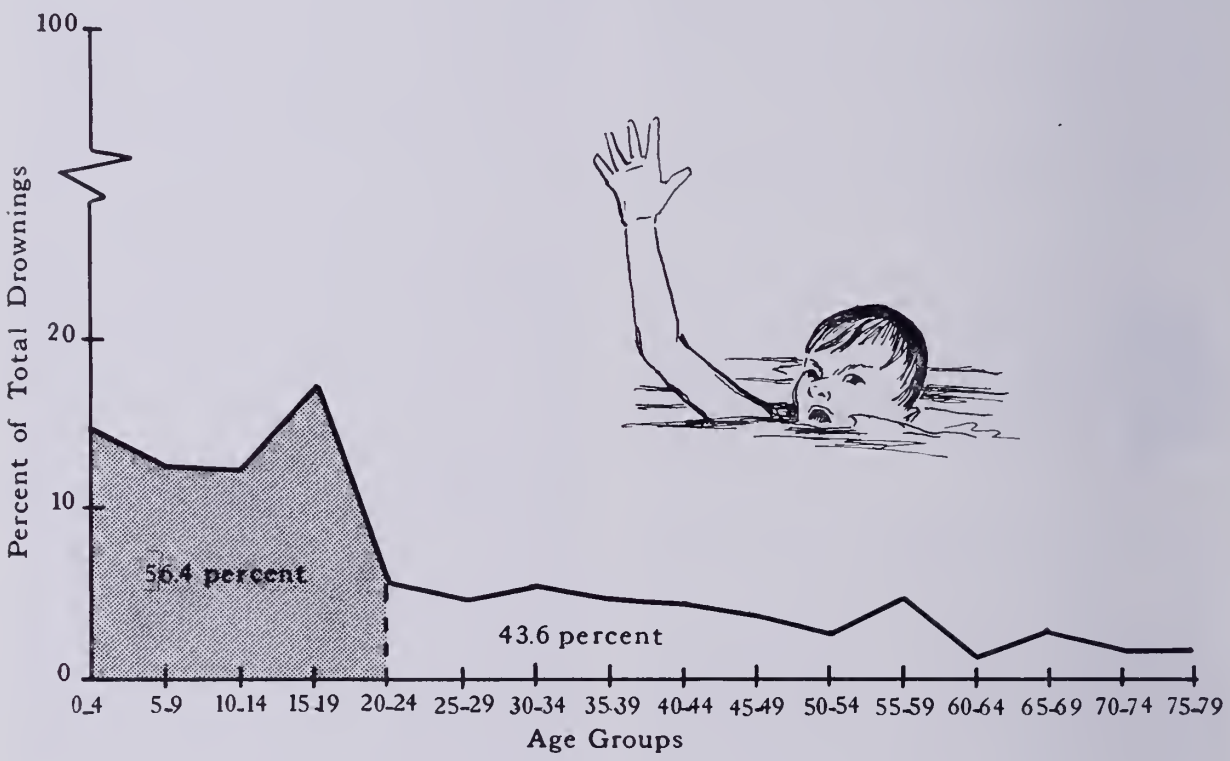
In summary, then, the psychiatrist frequently finds himself facing a dichotomy of attitudes. There are those who feel that he "can accomplish miracles," and those who feel that "there is nothing in psychiatry." Both of these attitudes, of course, are based upon feeling rather than upon fact. In any treatment program, it is certainly important for the psychiatrist to recognize his limitations and to admit them readily, but it is equally important for his non-psychiatric colleagues to expect neither too much nor too little of him.

In psychiatry, prognosis must be assessed very carefully with each individual patient. The complexity of emotional problems and the variables which one encounters in individual cases are ever present.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

IOWA DROWNINGS, 1951-1957



In Iowa last year, 65 persons drowned. Over the past seven years, drownings have averaged about 74, two-thirds of them occurring in the months of June, July and August.

Almost seven times as many males as females are drowning victims.

Roughly half of all drowning deaths occur in rivers and creeks, and at unsupervised lakes and beaches. Only four per cent occur at swimming pools, lake resorts and other places that are usually supervised. About 16 per cent occur to persons who have fallen from boats.

The largest group of victims, as the accompanying graph shows, are in the 15-19 year age group, but children less than five years of age form only a slightly smaller one. Deaths to persons under 20 years of age are more numerous than deaths in all other age groups put together.

It seems obvious, on the basis of these figures, that all of us should urge stricter parental supervision of bathing and boating, and that local governments should be pressed to forbid these activities in all places where life guards have not been stationed.

CHANGE IN MAILING RULES

Effective July 1, 1958, physicians may no longer use the cards and envelopes formerly provided them for mailing reports of communicable diseases to the Iowa State Department of Health. The prohibition also applies to the transmission of vital records, including birth, death, fetal death and other data reported by the county registrars. The discontinuance is by order of the United States Public Health Service.

The envelopes and cards that are no longer to be used are the ones bearing the printed legend:

"Penalty for private use to avoid payment of postage, $300." *Doctors are asked to destroy whatever stock of those envelopes they may still possess.*

POLIOMYELITIS DEATHS IN IOWA, 1910-1957

The accompanying chart, showing Iowa poliomyelitis deaths per 100,000 population since 1910, indicates clearly that in only two years, 1919 and 1942, were the death rates so low as during the last two years, 1956 and 1957.

Seemingly with good reason, we are accrediting the low poliomyelitis morbidity and mortality rates of the last two years to the effects of the vaccination program. There are those among us, however, who suggest that the recent case (and mortality) decline is merely the low point in a cycle of infection, and that there will be a natural increase in incidence beginning within the next few years.

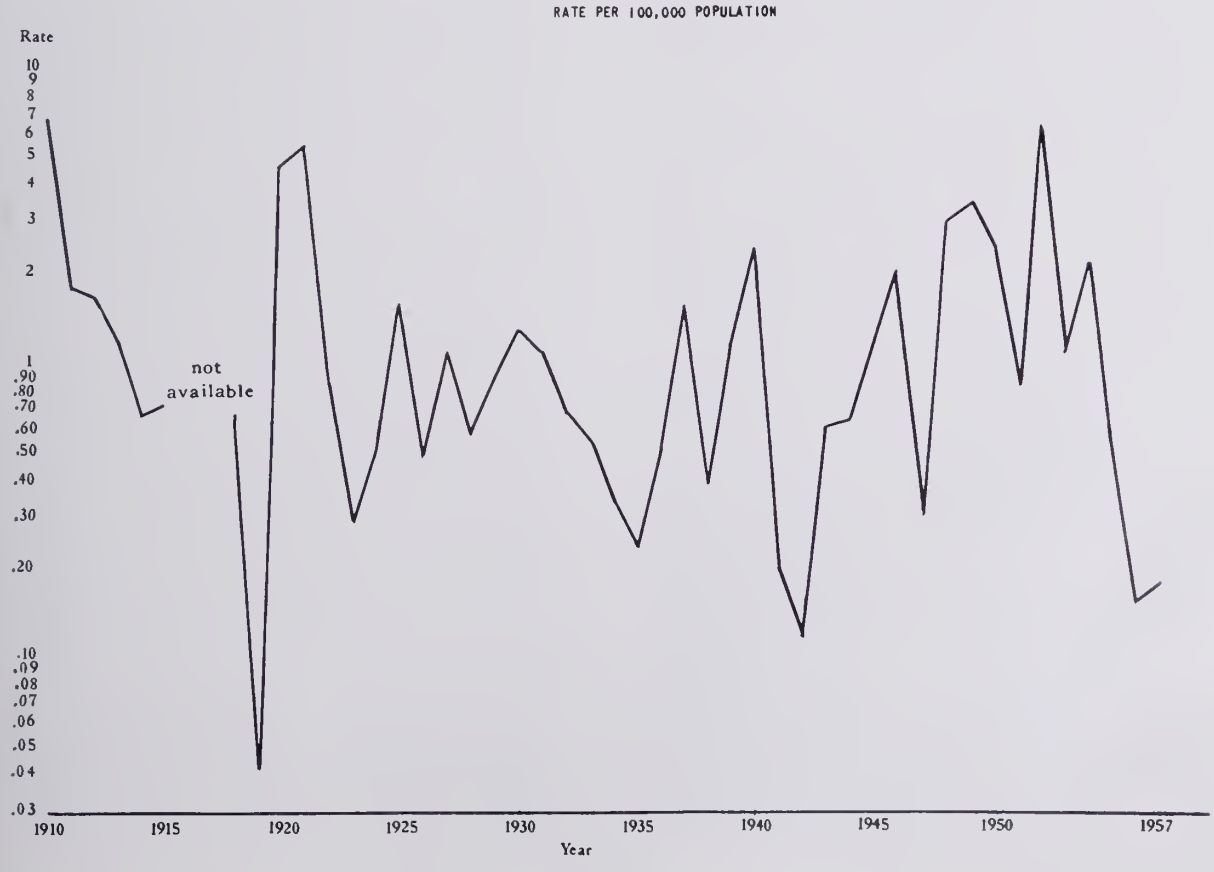
If, through a lack of exposure to infection, we are beginning to build up a reservoir of susceptible persons, we must work harder than ever with the vaccination program to prevent increases in poliomyelitis among those persons.

Remember, there is plenty of poliomyelitis vaccine this year. Remember too, that poliomyelitis doesn't confine its attacks to the young. Iowa's oldest recorded paralytic case was 78 years of age.

MORBIDITY REPORT FOR MONTH OF MAY

Disease	*1958 May*	*1958 April*	*1957 May*	*Most Cases From These Reported Counties*
Diphtheria	7	2	0	Fayette, Woodbury
Scarlet fever	247	226	66	Johnson, Jefferson, Polk
Typhoid fever	0	0	0	
Smallpox	0	0	0	
Measles	4599	1526	2189	Des Moines, Dubuque, Linn, Polk, Pottawatamie, Scott
Whooping cough	4	5	30	Davis
Brucellosis	11	7	22	Dubuque
Chickenpox	594	771	556	Clay, Dubuque, Linn, Polk, Scott
Meningicoccus meningitis	0	1	1	
Mumps	863	962	549	Clay, Dubuque, Polk
Poliomyelitis	3	0	1	Clay, Des Moines, Polk
Infectious hepatitis	15	62	18	Mills, Polk
Rabies in animals	24	24	33	Chickasaw, Lee, Palo Alto, Story
Malaria	0	0	0	
Psittacosis	1	0	1	Scott
Q fever	1	0	0	Benton
Tuberculosis	68	45	27	For the state
Syphilis	128	129	168	For the state
Gonorrhea	108	66	55	For the state
Histoplasmosis	1	0	0	Polk
Food intoxication	0	0	0	
Meningitis (type unspec.)	1	1	3	Carroll
Diphtheria carrier	8	0	0	Woodbury
Aseptic meningitis	0	0	0	
Salmonellosis	9	2	7	Polk
Tetanus	0	0	2	
Chancroid	0	0	0	
Encephalitis (type unspec.)	1	0	0	Monona
H. influenzal meningitis	0	0	0	
Amebiasis	16	2	1	Boone
Shigellosis	2	2	0	Polk
Influenza	20	17	0	Dubuque, Polk

POLIOMYELITIS DEATHS IN IOWA, 1910-1957



Woman's Auxiliary News

THE 1958 ANNUAL MEETING

The Twenty-ninth Annual Meeting of the Woman's Auxiliary to the Iowa State Medical Society convened at the Hotel Savery, in Des Moines, on April 21 and 22. That meeting was the culmination of our year's work, and we were pleased to report an increase in membership and an increase in active participation in the Auxiliary's endeavors by physicians' wives.

At the pre-convention board meeting on April 20, the president, Mrs. J. F. Gerken, presided, and the county presidents and committee chairmen in attendance gave reports of their groups' activities for the year. The president made some recommendations and suggestions that she felt were pertinent to the business of our fast-growing organization.

On Monday morning, April 21, at 9:30, the president opened the annual conference of delegates. The general business session included the reading and the acceptance of the revised Constitution and By-Laws, the reading and the acceptance of the proposed budget, the election of the Nominating Committee for 1959 and the first reading of the nominees for 1958 officers by the Nominating Committee for 1958.

We were fortunate to have as our guest the gracious and charming Mrs. John M. Wagner, National Safety Chairman of the Woman's Auxiliary to the AMA. Though Mrs. Wagner now lives in Pennsylvania, she felt very much at home with us, for she is a native Iowan with relatives in Fairfield and Des Moines. She addressed the Monday morning session on "A Safety Program Is a Challenge." The following four points, she said, are the aims of the National Safety Committee: (1) Driver training in every high school; (2) Tests for police identification of drunken drivers; (3) Safety features for automobiles; and (4) Inculcation of good driver attitudes.

Following Mrs. Wagner's address, Mrs. Charles A. Nicoll, of Panora, and Mrs. Donald Kast, of Des Moines, conducted an impressive memorial service, while Mrs. Eugene Smith, of Waterloo, played appropriate organ background music.

Mrs. Wayland Hicks, of Sioux City, was moderator for a panel discussion entitled "Information, Please," designed to provide an exchange of experiences with Auxiliary projects and to give everyone a feeling that we are all working together, instead of as separate county units. Reports were given by Mrs. R. L. Alberti, of Oskaloosa, Mrs. R. E. Hines, of Des Moines, Mrs. R. F. Nielsen, of Cedar Falls, Mrs. R. H. Moe, of Griswold, Mrs. E. A. Larsen, of Centerville, and Mrs. Leo Pearlman, of Des Moines. Mrs. Sam Zoeckler and Mrs. Charles Gutenkauf, of Des Moines, added a spot of humor to the panel.

Members of the Dallas-Guthrie County Auxiliary served as hostesses in the Hospitality Room on Monday morning, and members of the Marshall County Auxiliary served similarly on Tuesday morning. On both days, the coffee and rolls, and the friendly, pleasant atmosphere created by the charming hostesses gave members a happy start on their activities.

An attempt was made by the planning committee to obtain more active participation, so that all county groups and the members-at-large would feel they really belonged at the convention. This year, the counties were asked to bring table decorations for the Monday and Tuesday luncheons. The response was heartwarming, and the wonderful variety provided the chief topic of conversation.

The Monday luncheon was held in honor of former presidents of the State Auxiliary. As a representative of the Auxiliary, Mrs. H. C. Merillat, of Des Moines, gave each past-president present a miniature gavel with the year of her presidency inscribed on the handle. Those who were unable to attend will receive their souvenir gavels by mail.

Mr. James Foristel, of the AMA Legal Department, spoke on the Forand Bill. We are grateful to him and to Dr. F. C. Coleman, of Des Moines, chairman of the ISMS Committee on Legislation, who introduced him, for enabling the Auxiliary to have the latest information on this important proposal.

The guest speaker of the afternoon was Mrs. Arch Michel, of Des Moines, whose topic "Speaking Freely" had to do with the simple rules one should follow when addressing or appearing before a group. Among other things, Mrs. Michel said that we are judged (1) by what people hear—so cultivate a pleasant voice; (2) by what people see—so be well groomed and attractively dressed; and (3) by what people feel for you—so radiate a likable personality and an enthusiasm for your subject.

As has become its custom, the Auxiliary sponsored a benefit dance on Monday night in the Grand Ball Room of the Savery Hotel. All proceeds were given to the Nurses' Loan Fund and the American Medical Education Foundation. Those



Mrs. Maurice L. Northup, a tireless leader in voluntary work at Mercy Hospital and Veterans Hospital, Des Moines, was given the State Auxiliary's 1958 Health Service Award during the annual meeting in April. It was presented by Mrs. J. F. Gerken, of Waterloo, the president.

are two of our many important projects, and the support given those funds is greatly appreciated. The Standard Medical and Surgical Company, of Des Moines, deserves much of the credit for the success of the party, for it generously provided refreshments during the social hour that preceded the dance, and throughout the remainder of the evening. This party provided a wonderful opportunity for doctors and their wives to meet old friends and make many new ones, and the event, as it is repeated year after year, is anticipated with special pleasure.

Mrs. Gerken opened the Tuesday morning session of the conference of delegates at 9:30. Delegates to the National Auxiliary convention to be held at San Francisco in June were elected. The nominations for 1958 officers were read a second time. and the election was held. Mrs. L. R. Hegg installed the newly-elected officers, and Mrs. Gerken presented the gavel to the incoming president, Mrs. H. C. Merillat. Mrs. James Downing, as spokesman for the past-presidents, thanked the Auxiliary for the miniature gavels which had been given to them on the previous day.

Our guest speaker on Tuesday morning was Dr. Samuel P. Leinbach, of Belmond, who spoke to us on "Medicine's Best Ally—Its Woman's Auxiliary." As a member of the ISMS Board of Trustees, he commended the Auxiliary for all the work it has done and will do for a better democracy and a better world. He gave special praise to our work on legislation and public relations, nurse recruitment and fund raising for the AMEF. He then summarized some recent alvances in medicine and surgery and spoke briefly of the dangers of socialized medicine. It was a very informative talk, and gave us some very worthwhile topics for later discussion.

At the President's Luncheon, over which Mrs. Charles Flynn, of Clarinda, presided, Mrs. Gerken presented the Community Service Award to Mrs. M. L. Northup, of Des Moines. This award is given each year to a lay person for outstanding volunteer work in the health field. Dr. Fred Sternagel, of West Des Moines, president of the Iowa State Medical Society, awarded prizes to the three state winners in the essay contest. Next, Mrs. Merillat gave her inaugural address, the full text of which has appeared in the June issue of the AUXILIARY NEWS. The business of the day was then concluded with the presentation of the past-president's pin to Mrs. Gerken by Mrs. Dean King, of Spencer.

Thereafter, Julia Lenoble Fashions and Neuman's Children's Shop presented a delightful style show. The new and controversial adult fashions and some attractive sport clothes were featured. The children's fashions were shown by the small sons and daughters of some of our own doctors, and their busy mothers were the wardrobe mistresses behind the scenes. The youngsters, as well as the clothes that they modelled, were truly delightful, and they captured the hearts of all the audience.

I cannot write about the annual meeting without giving special thanks to all of those who made such a successful gathering possible. Mrs. Dwight Wirtz and her very capable committee deserve the appreciation of our whole organization for all of the time and effort they expended. To all the members of the Medical Society who gave so willingly of their time, may I express our special thanks.

The annual meeting for 1958 is now history, and we turn our thoughts toward the new year. I am confident that we shall continue to grow in size, and that we shall realize the goals that we have set for ourselves.

MRS. H. C. MERILLAT
President

HIGHWAY SAFETY CONFERENCE

The President's Committee for Traffic Safety convened its Citizen Leadership Conference for the Mid-Western Region at the Sherman Hotel, Chicago, April 1-2.

The purpose of the Conference was to mobilize wider and more effective support for the President's Highway Safety Action Program, and especially for the priority needs as determined at the December, 1957, conference of state and local officials. At the national level, the aims are to:

1. Focus the widest possible public attention on the urgent traffic safety needs of each state and its local communities

2. Encourage and assist existing citizen organizations to develop more citizen support for priority needs in each state and its local communities

3. Strengthen existing safety organizations and assist in the formation of new ones where required, so that citizen support for the program will be continuous and effective.

Following brief talks by the three state governors who were in attendance, we heard a recorded message from President Eisenhower: "My plea to you is: give your support in making certain that your safety needs are met as promptly as possible. More importantly, give the *leadership* that is indispensable if public support is to be effective. Action is the answer; cooperation is the means."

At the divisional meeting of Iowa delegates, Governor Loveless presented what he regards as our needs in this area, and a discussion followed. Mr. Russell Brown, the acting commissioner of public safety, was given a vote of endorsement for his "point program." When about 25 objectives had been agreed upon by this divisional meeting, a committee was given the job of condensing them, for presentation to the general meeting on the following day. The afternoon was given over to group discussions of specific traffic problems.

When our state section was reconvened on the next morning, we chose the following six as Iowa's priority needs:

1. A secondary-road speed limit of 50 m.p.h.
2. More and better driver education
3. "Yield Right of Way" signs
4. Additional training for city and county engineers
5. An "implied consent" law permitting a chemical test for every driver suspected of intoxication
6. Enough state police for adequate enforcement of traffic safety on both secondary and interstate road systems.

I now urge each member of the Auxiliary to help plan a good action program for your county chapter. Our legislature meets this coming January. Let's each of us inform herself, see to it that her county Auxiliary has a good project of this sort, and get in touch with her state senator and representative so that they will know what the members of the ISMS Auxiliary want in the field of traffic safety.

MRS. RALPH HINES
Safety Co-chairman

IN MEMORIAM

The members of the Woman's Auxiliary to the Iowa State Medical Society have been saddened to learn of the death of Mrs. Walter Kirch, of Des Moines.

COUNTY AUXILIARIES

Black Hawk

On Thursday morning, May 22, Mrs. Richard Acker, of Waterloo, was installed as the new president of the Black Hawk County Medical Auxiliary. The installation took place following a brunch at the Sunnyside Country Club. The other new officers are Mrs. Richard Driver, president-elect; Mrs. William Telfer, first vice-president; Mrs. R. D. Richards, recording secretary; Mrs. John Kestel, corresponding secretary; and Mrs. Arthur Woodward, treasurer. Mrs. Carl Hanson, the retiring pesident, installed the new officers.

Mrs. Richard Mitchell sang. Table decorations were done by Mrs. S. W. Barnett, of Cedar Falls, with the assistance of Mrs. Lewis Zager.

Dallas-Guthrie

The Dallas-Guthrie Medical Auxiliary met for luncheon on May 15, at the Horse N' Buggy Inn, at Adel. Twelve members were present. Reports of delegates to the state convention were given by Mrs. Charles Nicoll and Mrs. R. J. Peterson, of Panora.

Mahaska

Following luncheon at the Downing Hotel, in Oskaloosa, members of the Mahaska County Medical Auxiliary heard their officers' yearly reports and a review of the highlights of the state convention given by Mrs. George Atkinson. At the conclusion of the business meeting, Mrs. Kenneth Lemon spoke on her recent trip to Hawaii.

Polk

At a joint meeting of the six Des Moines Future Nurses Clubs, at North High School, May 16, 90 girls received their honor pins, earned through volunteer service in local hospitals, in health promotions and in the Salk vaccination program. They represented Technical, Lincoln, East, Roosevelt, North and Saydel High Schools.

The speaker of the evening was Dr. Robert Stickler, a Des Moines surgeon. Mrs. Walter Anderson was chairman of the meeting, and Mrs. Robert Anderson co-chairman.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

MINUTES OF THE 1958 SESSIONS OF THE HOUSE OF DELEGATES

Iowa State Medical Society
Des Moines, Iowa—April 20-23, 1958

(Alphabetical Index of the Minutes Can Be Found on Page 424)

SUNDAY AFTERNOON SESSION
APRIL 20, 1958

The House of Delegates of the Iowa State Medical Society was called to order by the Speaker, Dr. C. V. Edwards, Sr., of Council Bluffs, at 1:00 p.m., Sunday, April 20. The House of Delegates approved the taking of attendance by signed registration cards. There were 101 delegates, 12 voting alternates, and 17 ex-officio members present.

County	*Delegate*	*Alternate*
Adair	A. J. Gantz	
Adams	J. C. Nolan	
Appanoose	E. A. Larsen	
Black Hawk	T. L. Trunnell	
	F. G. Loomis	V. I. Sciscent
Boone	R. L. Wicks	
Buchanan	R. L. Knipfer	
Buena Vista	H. E. Farnsworth	
Calhoun	C. R. Wilson	
Carroll	J. M. Tierney	
Cass	R. H. Moe	
Cerro Gordo	L. W. Swanson	
	J. K. MacGregor	
	Sidney Brownstone	
Cherokee	D. C. Koser	
Chickasaw	P. C. Richmond	
Clarke		C. R. Harken
Clinton		R. J. Nelson
	V. W. Petersen	
Dallas-Guthrie	W. A. Castles	
	W. A. Seidler	
Davis	E. O. Gilfillan	
Decatur	E. E. Gamet	
Delaware	J. E. Tyrrell	
Des Moines	F. G. Ober	
		J. L. Saar
Dubuque	D. F. Ward	
	C. J. Schueller	
	E. J. Connelly	
Emmet	G. B. Johnston	
Floyd	O. H. Banton	
Franklin		R. E. Munns
Greene	P. E. Lohr	
Grundy		H. V. Kahler
Hamilton	G. A. Paschal	
Hancock-Winnebago	D. F. Shaw	
Hardin	J. J. Shurts	
Harrison	A. C. Bergstrom	
Howard	P. A. Nierling	
Humboldt	J. H. Coddington	
Jasper	J. W. Billingsley	
Jefferson	J. W. Castell	
Johnson	K. R. Cross	
	R. H. Flocks	
	J. M. Layton	
	W. M. Kirkendall	
	C. E. Shrock	
	S. C. Ware	
	A. C. Wise	
Jones		T. M. Redmond
Kossuth	Paul Warner	
Lee	L. E. Pumphrey	
Linn	John Parke	
	J. J. Redmond	
		W. J. Moershel
	L. J. Halpin	
	C. H. Stark	
Lucas	H. D. Jarvis	
Madison	G. J. Anderson	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	D. D. Harris	
		J. C. Garland
Mills	M. L. Scheffel	
Montgomery	Oscar Alden	
Osceola	T. J. Carroll	
Page	J. R. Eisenach	
Palo Alto	G. H. Keeney	
Plymouth	F. D. Christensen	
Pocahontas	J. B. Thielen	
Polk	D. F. Crowley, Jr.	
	R. A. Dorner	
	N. W. Irving, Jr.	
	T. A. Bond	
	J. T. Bakody	
	F. M. Burgeson	
	J. T. McMillan	
	B. M. Merkel	
		D. O. Newland
	M. E. Alberts	
	C. W. Losh, Jr.	
	R. B. Stickler	
	D. C. Wirtz	
Pottawattamie	H. W. Mathiasen	
	G. H. Pester	
Poweshiek	T. V. Niemann	
Ringgold	D. E. Mitchell	
Sac	J. W. Gauger	
Scott	P. E. Gibson	
	J. H. Sunderbruch	
	A. B. Hendricks	
	J. F. Bishop	
Shelby	L. V. Larsen	
Story	G. E. McFarland, Jr.	
	G. E. Montgomery	
Tama	C. W. Maplethorpe, Sr.	
Union	H. J. Peggs	
Van Buren	L. A. Coffin	
Wapello	P. D. McIntosh	
	K. E. Lister	
Warren	C. A. Trueblood	
Washington	D. G. Sattler	
Wayne	C. N. Hyatt	
Webster	C. J. Baker	
	H. H. Allen	
Winneshiek	E. F. Hagen	
Woodbury		H. E. Rudersdorf
	P. L. Bettler	
	M. A. Blackstone	
Worth		B. H. Osten
Wright	G. E. Schnug	

DELEGATE AT LARGE

T. D. Throckmorton

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

Fred Sternagel	B. F. Howar
W. D. Abbott	S. D. Porter
R. F. Birge	C. E. Radcliffe
C. V. Edwards	J. H. Sunderbruch
G. H. Scanlon	G. S. Atkinson
A. F. Fritchen	C. H. Flynn
S. P. Leinbach	R. N. Larimer
R. M. Dahlquist	F. C. Coleman
P. W. Brecher	

Minutes of the May 1, 1957, meeting of the House of Delegates were approved as published in the July, 1957, JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. The Speaker outlined procedures to be followed in conducting the business of the House of Delegates and announced the appointment of reference committees, stating that the reference committees would be ex-

pected to begin their hearings at 8:30 a.m., Monday, April 21.

The Speaker announced the names of the physicians who had been chosen by their respective districts to serve on the Nominating Committee. They were as follows:

Harold E. Farnsworth, M.D.
G. E. McFarland, Jr., M.D.
Dale Harris, M.D.
Harold Peggs, M.D.
G. E. Schnug, M.D.
E. O. Hagen, M.D.
M. L. Scheffel, M.D.
Donovan Ward, M.D.
L. E. Pumphrey, M.D.
George H. Keeney, M.D.
E. A. Larsen, M.D.

Reports as published in the 1957 HANDBOOK FOR THE HOUSE OF DELEGATES were approved.

Reports of Officers

FROM THE OFFICE OF THE SECRETARY

HOUSE OF DELEGATES

Complete proceedings of the meetings of the House of Delegates, held on April 28 and May 1, 1957, were published in the July, 1957, JOURNAL OF THE IOWA STATE MEDICAL SOCIETY. The office has worked with officers and committees in carrying out directives of the House of Delegates. The president has been assisted in announcing his committee appointments and in organizing and activating the newly appointed committees.

COMMITTEES

The Society has 39 standing and special committees, most of which have met at least once during the year. Reports covering activities of these committees appear elsewhere in this HANDBOOK, or will be presented as oral reports to the House of Delegates. To date, approximately 40 official committee meetings have been held, and it is anticipated that prior to the Annual Meeting there will be at least 10 additional meetings. These totals include neither the numerous informal meetings that have been held by members of these committees, nor the meetings that have been accomplished by telephone conferences.

EXECUTIVE COUNCIL

The Executive Council, the policy-making body of the Society between sessions of the House of Delegates, has held three meetings since last April. It has concerned itself with problems in connection with the hospital-physician controversy, relations with Blue Shield, Asian influenza, polio immunization, the Iowa Relative Value Fee Study, Medicare, etc.

JUDICAL COUNCIL

The Judicial Council, the State Society's judicial authority, has held seven meetings since the Annual Meeting in 1957. One of its major responsibilities has been the approval of applicants for ISMS membership. The Council has also heard a case referred to the Iowa State Medical Society by Blue Shield, and one referred by the ISMS Grievance Committee. The Judicial Council has cooperated with the Rural Health Committee in promoting the preceptorship program, as well as in the placement of physicians. Preparations for the program for last fall's Conference of County Society Officers were based upon recommendations of the Judicial Council. These are but a few of the important matters that have been considered by the Judicial Council during the past year.

BOARD OF TRUSTEES

The Board of Trustees is responsible for the finances of the Society and for the conduct of the Society's business affairs. Since the last Annual Meeting, the Board of Trustees has held eight official meetings and several telephone conferences. Among others, it has concerned itself with the following problems: personnel of the headquarters office, the operation of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, specific problems in connection with the hospital-physician controversy, the approval of expenditures for various committee projects, committee replacements as prescribed by the Articles of Incorporation and Bylaws, and the myriad of details that confront the board of directors of any corporation.

LIAISON WITH COUNTY MEDICAL SOCIETIES

Officers and other members of the Society, as well as staff personnel, have met with a number of county medical societies during the past year. The programs presented at the county meetings have included discussions on legislation, Blue Shield, public relations, medical service, and general activities of the State Society.

FIELD SERVICE

Through the efforts of our field secretary and other staff members, at least one field visit has been made to practically every county in the state of Iowa, and in many instances more than one visit. This field work has concerned all phases of Medical Society activity, with special emphasis on medical service, public relations, and legislation.

CONFERENCE OF COUNTY SOCIETY OFFICERS

This annual conference was held in October, 1957, and county society officers, including delegates, councilors, legislative contact men, and public relations chairmen, were invited to attend. An outstanding program was presented, the highlight being a report on the Michigan Prepayment Opinion Survey. Unfortunately, attendance was not as good as had been expected. For this reason, officers of the Society are giving serious thought to discontinuing this annual fall conference and replacing it with district or regional meetings.

BLUE SHIELD

During the past year, maintenance of the Medical Society's excellent relationship with Blue Shield has consumed a great amount of time for Society officers, committee chairmen and members, as well as staff members. This has been especially true of the Society's endeavor to cooperate with and assist Blue Shield in consummating the transfer of medical services from Blue Cross to Blue Shield. Iowa State Medical Society representatives were in attendance at all Blue Shield Board meetings, as well as all meetings of its Executive Committee, and informal conferences have been held almost daily. Conversely, representatives of the board and staff of Blue Shield have been in attendance at practically all ISMS meetings where Blue Shield was involved directly or indirectly.

NATIONAL, REGIONAL AND STATE CONFERENCES

The State Society has maintained close liaison with

the American Medical Association and Blue Shield Medical Care Plans, as well as many other national organizations. The ISMS is now represented on the AMA Committee on Federal Medical Services by Dr. D. C. Conzett, of Dubuque, on the Legislative Committee by Dr. F. C. Coleman, of Des Moines, and on a newly created committee that is studying revisions of the Constitution and Bylaws of the AMA Scientific Assembly by Dr. D. F. Ward, of Dubuque. The Society's Executive Secretary is a member of the AMA Public Relations Advisory Committee. Many of the Society's members have national affiliations too numerous to mention.

National conferences attended by a representative or representatives of the ISMS have included meetings of the AMA, of the AMA Public Relations Advisory Committee, the National Rural Health Conference, the Conference on Physicians and Schools, the Conference of Auxiliary Presidents and State Chairmen, the AMA Symposium on Nutrition and Pregnancy, the National Mental Health Conference, the National Television Conference, the National Meeting on Civil Defense, the Conference of State Medical Journal Editors, the Congress on Industrial Health, the National Medicare Conference, the American Medical Education Foundation, and the National Blue Shield Conference on Professional Relations.

Regional conferences attended by a representative or representatives of the ISMS have included two Medicare conferences, the North Central Medical Conference, the Annual Meeting of the State Medical Society of Wisconsin, and the Annual Meeting of the Michigan State Medical Society.

State conferences attended by a representative or representatives of the Iowa State Medical Society have included Senior Day (Iowa City), Health Education Workshop, United Nations Day, Governor's Mental Health Advisory Committee, Governor's Asian Flu Advisory Committee, Interprofessional Conference on Disaster Planning, Disaster Planning Committee of the Iowa Interprofessional Association, Clergy-Hospital Workshop, Annual Meeting of Iowa Nurses' Association, Annual Meeting of Iowa Association of Medical Assistants, Cedar Rapids Chapter of Iowa Medical Assistants, Iowa Council on Physical Fitness, Annual Meeting of Iowa Nursing Home Association, Annual Meeting of Iowa Interprofessional Association, and numerous county medical society meetings.

GENERAL MAILINGS

The mailings issued during the year have consisted of 10 news bulletins, 10 legislative bulletins, 5 Public Relations Committee mailings, and 3 Deputy Councilor Newsletters. We rely on the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY to transmit general information to the membership.

SERVICES TO THE WOMAN'S AUXILIARY

Full facilities of the ISMS have been made available to the Woman's Auxiliary to assist it in carrying out its projects. However, the bulk of this work is handled by an executive assistant who is staff secretary to the Auxiliary. The Society staff has been represented at the following Auxiliary meetings: Woman's Auxiliary board meetings, executive board meetings, practical nurses conferences, Conference on Nursing Careers, National Conference of State Auxiliary Officers, conferences with the Auxiliary committee responsible for planning the Woman's Auxiliary Annual Meeting, numerous conferences with committee chairmen, and conferences with the Auxiliary's Committee on Constitution and Bylaws. The staff handles mailings of various types for the Woman's Auxiliary.

Other administrative responsibilities for the Woman's Auxiliary have included arrangements for the Woman's Auxiliary Annual Meeting, preparation of annual reports, maintenance of membership records and roster, and preparation of the WOMAN'S AUXILIARY NEWS.

STAFF

Detailed information on the ISMS office personnel will be included in the reports of the Board of Trustees to the House of Delegates.

MEMBERSHIP INFORMATION

This department processes applications for membership and maintains records on all members of the ISMS. It also collects and transmits all membership dues of the American Medical Association. It is responsible for preparing the official membership roster of the ISMS, as well as its Auxiliary. For the past few years, the membership secretary has been preparing biographical information and a personal file on each member of the ISMS. Administrative details in connection with Life and Fifty Year Club memberships are also handled through the membership department.

ISMS MEMBERSHIPS

Memberships in the Iowa State Medical Society during the year 1957 totaled 2,447, as compared with 2,515 in 1956. There were 62 counties with 100 per cent of the county society members holding membership in the ISMS, the same number as the previous year. In 1957 there were 74 eligible non-members, as contrasted with 68 in 1956. The number of ineligible non-members, 48, represents a drop of three in this category. Three physicians previously in this group were licensed in Iowa during the past year. Physicians retired or not in practice increased from 97 in 1956 to 114 in 1957. The total membership percentage in 1957 remains at 97.

COUNTY SOCIETIES HAVING 100 PER CENT MEMBERSHIP IN ISMS 1957

Adams	Davis	Jefferson	Ringgold
Audubon	Delaware	Kossuth	Scott
Boone	Des Moines	Lee	Shelby
Bremer	Floyd	Lucas	Story
Buena Vista	Franklin	Lyon	Tama
Butler	Greene	Madison	Taylor
Calhoun	Grundy	Mahaska	Union
Carroll	Hamilton	Marshall	Van Buren
Cerro Gordo	Hardin	Monroe	Wapello
Cherokee	Harrison	Montgomery	Warren
Chickasaw	Howard	Muscatine	Washington
Clarke	Humboldt	Osceola	Wayne
Clay	Ida	Page	Webster
Crawford	Iowa	Plymouth	Winneshiek
Dallas-Guthrie	Jackson	Pocahontas	Wright
	Jasper	Polk	

1957 ISMS MEMBERSHIP RECORD

County	Members	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage
Adair	4	2	..	..	50
Adams	4	..	..	..	100
Allamakee	6	1	..	1	88
Appanoose	13	3	..	..	81
Audubon	6	..	..	1	100
Benton	15	2	..	..	89
Black Hawk	116	3	..	1	98
Boone	20	..	..	..	100
Bremer	18	..	..	..	100
Buchanan	9	1	12	..	90
Buena Vista	16	..	2	..	100
Butler	9	..	..	..	100
Calhoun	14	..	..	1	100
Carroll	25	..	..	1	100
Cass	11	1	1	..	91
Cedar	7	1	..	..	88
Cerro Gordo	71	..	..	1	100
Cherokee	18	..	1	1	100
Chickasaw	12	..	..	..	100
Clarke	6	..	..	..	100
Clay	13	..	..	..	100
Clayton	11	2	..	1	85
Clinton	48	2	3	..	96
Crawford	8	..	..	2	100
Dallas-Guthrie	27	..	4	..	100
Davis	13	..	..	..	100
Decatur	5	1	..	1	83
Delaware	12	..	1	1	100
Des Moines	45	..	..	2	100
Dickinson	7	1	..	..	88
Dubuque	73	6	..	2	92
Emmet	13	1	..	..	93
Fayette	22	2	..	2	92
Floyd	17	..	..	1	100
Franklin	9	..	..	..	100
Fremont	6	1	..	2	85
Greene	16	..	..	1	100
Grundy	12	..	..	..	100
Hamilton	13	..	1	..	100
Hancock-Winnebago	16	2	..	2	89
Hardin	20	..	..	2	100
Harrison	8	..	..	3	100
Henry	13	1	6	1	93
Howard	7	..	..	..	100
Humboldt	10	..	..	..	100
Ida	5	..	..	2	100
Iowa	13	..	..	..	100
Jackson	14	..	..	..	100
Jasper	20	..	..	3	100
Jefferson	12	..	..	2	100
Johnson	201	4	..	5	99
Jones	14	2	..	..	88
Keokuk	7	2	1	2	78
Kossuth	13	..	2	2	100
Lee	35	..	..	1	100
Linn	122	1	..	5	99
Louisa	2	4	..	..	33
Lucas	8	..	..	..	100
Lyon	6	..	..	..	100
Madison	6	..	..	..	100
Mahaska	18	..	..	1	100
Marion	17	7	..	..	71
Marshall	38	..	..	..	100
Mills	5	1	1	2	84
Mitchell	9	5	..	2	65
Monona	11	1	..	1	92
Monroe	7	..	..	..	100
Montgomery	15	..	..	..	100
Muscatine	21	..	2	..	100
O'Brien	14	1	..	1	94
Osceola	6	..	..	..	100
Page	23	..	5	..	100
Palo Alto	11	2	..	..	84
Plymouth	11	..	..	3	100
Pocahontas	9	..	1	1	100
Polk	313	..	2	20	100
Pottawattamie	67	1	1	4	99
Poweshiek	9	5	..	..	64
Ringgold	5	..	..	..	100
Sac	10	1	..	..	91
Scott	108	..	..	7	100
Shelby	7	..	..	1	100
Sioux	12	1	..	..	92
Story	45	..	..	1	100
Tama	13	..	..	1	100
Taylor	3	..	..	..	100
Union	15	..	..	..	100
Van Buren	5	..	..	..	100
Wapello	53	..	..	1	100
Warren	9	..	..	2	100
Washington	14	..	..	1	100
Wayne	6	..	..	..	100
Webster	55	..	..	4	100
Winneshiek	9	..	..	1	100
Woodbury	127	2	2	6	98
Worth	4	1	..	..	80
Wright	23	..	..	3	100
	2,447	74	48	114	97

AMA MEMBERSHIP

In 1957, 2,381 members of the Iowa State Medical Society were active members of the American Medical Association. In addition, 29 members hold associate memberships, and 13 hold service memberships (in Veterans Administration work) in the AMA. The 2,381 active AMA memberships during the year entitle us to three AMA delegates. Our 1957 AMA membership was 95½ per cent of the total Iowa State Medical Society membership.

REPORT OF THE TREASURER

The following statement for the year 1957 reveals that the Society's financial position is gradually improving. Receipts and expenditures were both less than in 1956; however, the year was completed with our net worth showing an increase. This is particularly noteworthy in view of the fact that the Society's activities continue to expand.

In accordance with the action of the 1954 House of Delegates, the Baldridge-Beye Memorial Fund was contributed to the American Medical Education Foundation, earmarked for the State University of Iowa College of Medicine. The 1957 contribution of $2,700 consisted of $2,100 from the assignment of $1.00 for each dues paying member and $600 from a Baldridge-Beye loan paid off during the year.

ASSETS

Current Assets:		
Cash in Banks	$ 23,280.73	
Government Bonds	40,419.80	
Treasury Bills	19,000.00	
Medicare	5,000.00	
Notes Receivable—		
Baldridge-Beye Fund	3,178.00	
North Central Dist. Blood Bank Clearing House	500.00	
Pension Insurance due from Employees	342.54	
Total Current Assets		$ 91,721.07
Fixed Assets:		
Land	$ 5,000.00	
Building	41,139.94	
Office Furniture and Fixtures	15,946.22	

Total	$ 62,086.16	
Less: Depreciation to Date	16,244.43	
Net Fixed Assets		$ 45,841.73
TOTAL ASSETS		$137,562.80

LIABILITIES AND NET WORTH

Liabilities:		
Local Taxes	$ 1,206.97	
TOTAL LIABILITIES		$ 1.206.97
Baldridge-Beye Memorial Fund:		
Balance 1-1-57	$ 3,778.00	
Add: Income 1957	2,100.00	
Total	$ 5,878.00	
Less: Payment to American Medical Education Foundation	2,700.00	
Net Baldridge-Beye Fund		$ 3,178.00
Net Worth:		
Balance 1-1-57	$117,754.22	
Add: Net Income 1957	15,423.61	
Balance, Period ending 12-31-57		$133,177.83
TOTAL LIABILITIES AND NET WORTH 12-31-57		$137,562.80

CASH RECEIPTS FOR THE YEAR 1957

Dues—State Society	$157,632.00
Dues—AMA	49,957.50
ISMS Educational Fund	20,827.50
JOURNAL Advertising	35,391.38
JOURNAL Reprints	2,008.59
Annual Session	13,403.06
Contributions	616.06
Medicare	5,994.90
Miscellaneous	406.29
AMA Collection Commission	502.50
Interest—Government Bonds	1,090.40
Interest—Notes Receivable	40.00
Interest—Savings Accounts	320.21
TOTAL RECEIPTS	$288,190.39

EXPENDITURES FOR THE YEAR 1957

Annual Session	$ 13,369.53
Baldridge-Beye Memorial Fund	2,100.00
Committee Expense:	
Grievance	1,597.85
Health Education	4,340.07
Legislative	12,000.00
Medical Education and Hospitals	35.67
Medical Service	1,093.91
Medico-Legal	..
Public Health	3,011.41
Public Relations	2,209.60
Other Committees	3,210.12
Council Expense	1,712.85
County Society Services	1,246.06
Depreciation—Building	1,020.00
Depreciation—Office Furniture and Fixtures	1,428.30
Discount on Bonds	2.70
Dues to AMA	49,982.50
Dues and Subscriptions	814.05
General Administrative Expense	1,058.73
Insurance	480.49
ISMS Educational Fund	20,827.50
Janitor Supplies	62.81
JOURNAL—Printing and Engraving	33,443.59
JOURNAL—Reprints	1,769.13
Legal Expense	6,809.40
Light, Gas and Water	1,082.27
Local Taxes	1,200.00
Office Stationery and Supplies	3,469.90
Pension Insurance	693.18
Postage	2,370.96
Repairs and Maintenance of Office Equipment and Building	714.57
Salaries	67,565.90
Salaries—Outside Secretarial	71.58
Service Contracts—Machines	408.50
Social Security	1,109.03
Special Public Relations	14,425.65
Telephone and Telegraph	3,574.93
Travel—Officer	4,480.48
Travel—Salaried Employee	5,776.66
Trustee Expense	1,207.22
Unemployment Tax—Federal	121.50
Unemployment Tax—State	91.12
Use Tax	777.06
TOTAL EXPENDITURES	$272,766.78
Net Income	$ 15,423.61

N. BOYD ANDERSON, M.D., *Treasurer*

REPORT OF THE BOARD OF TRUSTEES

The Board of Trustees has taken under advisement a resolution referred to it by the House of Delegates last April. It requests the Board to study the possibility of reducing the annual dues of the ISMS to $75.00 in 1959. This resolution will be considered as the Board of Trustees prepares its comprehensive report for presentation to the House of Delegates in April. In order for the information contained in it to be current, this report will not be completed until just prior to the Annual Meeting.

The report of the treasurer in the HANDBOOK indicates that the Society has $40,000 in Government bonds. We plan to purchase an additional $10,000 in bonds before the Annual Meeting, which will increase the bond reserve to $50,000. The Board will continue its effort to replenish the Society's bond reserve to a minimum of $60,000.

Delegates are urged to give careful study to reports appearing in the HANDBOOK. Special attention should be given to the reports of the secretary and treasurer.

Report of the Judicial Council

FIRST COUNCILOR DISTRICT

There were no general meetings of the First Councilor District during 1957. The smaller counties have held Annual Meetings and several of them have held special meetings following their regular hospital staff meetings. Floyd County holds regular monthly meet-

ings, except during the months of July and August, and invites physicians from other counties several times yearly for scientific programs.

On September 5, 1957, the Winneshiek County Medical Society had a dinner in honor of Dr. Felix Hennessy, of Calmar. Dr. Hennessy is a past-president of the Iowa State Medical Society and had completed 50 years of practice. The dinner was very well attended, and the guests included prominent people from many parts of the state.

On November 12, 1957, the Fayette County Medical Society had a dinner in honor of Dr. E. S. Kennedy. At this event, Dr. Kennedy was presented an honorary scroll for having been named the Iowa General Practitioner of the Year. The presentation of the scroll was made by Dr. A. F. Fritchen, a member of the Board of Trustees of the Iowa State Medical Society.

All of the doctors and hospitals in the first district are now cooperating fully with the new law relating to pathology and radiology services in hospitals.

R. M. DAHLQUIST, M.D., *Councilor*

Deputy Councilors:

MILTON KIESAU, M.D., Allamakee
F. R. SPARKS, M.D., Bremer
M. J. McGRANE, M.D., Chickasaw
P. R. V. HOMMEL, M.D., Clayton
A. F. GRANDINETTI, M.D., Fayette
E. V. AYERS, M.D., Floyd
P. A. NIERLING, M.D., Howard
T. E. BLONG, M.D., Mitchell
E. F. HAGEN, M.D., Winneshiek

SECOND DISTRICT

All of the counties in the Second District—Butler, Cerro Gordo, Franklin, Hancock-Winnebago, Humboldt, Kossuth, Worth and Wright—carried out preschool examinations, and many "Asian flu" inoculations were given. For the most part these programs were carried out in the individual doctors' offices. Butler County reports a polio immunization program.

In March, 1958, a meeting was held in Mason City for councilors, delegates, and officers of the various counties in the Second District.

The programs at the regular meetings of the Cerro Gordo County Society were well attended by doctors from surrounding counties.

JAY E. HOULAHAN, M.D., *Councilor*

Deputy Councilors:

FRANK F. McKEAN, M.D., Butler
H. G. MARINOS, M.D., Cerro Gordo
W. L. RANDALL, M.D., Franklin
T. J. IRISH, M.D., Hancock-Winnebago
I. T. SCHULTZ, M.D., Humboldt
M. G. BOURNE, M.D., Kossuth
CHARLES BERGEN, M.D., Worth
S. P. LEINBACH, M.D., Wright

THIRD DISTRICT

The activities of county societies in the Third Councilor District during the 1957-58 year gave evidence of accelerated interest in organized medicine. There has been an increase in cooperation between the counties of the District in working out various problems confronting the profession, with a view to achieving closer conformity in their activities.

It is felt that this closer organization and cooperation will have a favorable effect on public relations for the profession. Four of the counties—Lyon, Sioux, Osceola and O'Brien—are organized as the Northwest Iowa Medical Society and hold meetings for scientific purposes and also for discussion of professional matters. The Upper Des Moines Medical Society, mainly headed by members from counties in the Third Councilor District, has an annual summer meeting which is largely scientific in nature.

Three clinics for crippled children were held in the District this past year.

The Clay County Medical Society has a meeting the third Tuesday of each month, except in July and August. Some time at each session is devoted to scientific study. An immunization program for children in all schools in the county is carried out regularly. The Woman's Auxiliary maintains its 100 per cent membership and excellent devotion to its many endeavors.

The Dickinson County Medical Society averages about four meetings each year. It had films of "Grand Rounds" at two meetings in 1957-58. In 1957, over 3,000 people were given a series of three polio shots in a mass program. All the wives of Dickinson County physicians are members-at-large of the Woman's Auxiliary and are actively taking part in projects of that organization.

The Lyon County Medical Society has one regular meeting each year for the election of officers, and in 1957-58 it had an additional meeting. The Lyon County Woman's Auxiliary is currently sponsoring the Essay Contest of the American Association of Physicians in the high schools.

The O'Brien County Medical Society meets annually for election of officers, besides participating in the activities of the Northwest Iowa Medical Society. O'Brien County has an organized Auxiliary.

Osceola County's Society meets once a month from September through May. It has had two public immunization programs for polio in the past year. Its Auxiliary meets at the same time as the Medical Society and maintains considerable activity.

The Palo Alto County Medical Society has had some spirited meetings concerned with the questions of mass immunizations and the organization of its hospital staff to comply with the Iowa law. The Palo Alto County Woman's Auxiliary is active in immunization programs, Cancer Society programs and other efforts for the good of the community.

The Pocahontas County Medical Society has held monthly socio-medico-economic meetings during the year 1957-58, its meetings being held in the homes of the members. Three of the doctors are on State Society committees.

The Emmet County Medical Society has monthly scientific and business programs in connection with hospital staff meetings at Estherville. There is an organized Auxiliary which meets at the same time.

The Sioux County Medical Society holds its meetings at the Sioux Valley Hospital and is also connected with the Northwest Iowa Medical Society. Its Auxiliary also meets at the times of regular Medical Society meetings.

In addition to their professional activities, physicians in the Third District are mayors, school board members and officers of service organizations, and are otherwise active participants in civic affairs.

DEAN H. KING, M.D., *Councilor*

Deputy Councilors:

C. C. JONES, M.D., Clay
R. F. WOLCOTT, M.D., Dickinson
E. K. VAUBEL, M.D., Emmet
STUART COOK, M.D., Lyon
E. B. GETTY, M.D., O'Brien
F. M. RIZZO, M.D., Osceola
H. L. BRERETON, M.D., Palo Alto
C. L. JONES, M.D., Pocahontas
M. O. LARSON, M.D., Sioux

FOURTH DISTRICT

Reports were received from five of the nine deputy councilors: R. M. Johnson, M.D., Crawford County; R. E. Underriner, M.D., Ida County; T. E. Shea, M.D., Buena Vista County; D. B. Blume, M.D., Woodbury County; and H. L. Vander Stoep, M.D., Plymouth County.

Woodbury County held 10 regular monthly meetings, six of which were scientific; one a joint meeting with the Woodbury County Nurses Association; two for discussions of local problems and election of officers; and one for discussion of the State Society activities by Dr. W. L. Downing, Mr. Robert Throckmorton and Mr. W. H. Sherin. Two of the meetings which stimulated a great amount of interest were programs on Asiatic flu, at which the guest speaker was Dr. Albert P. McKee, a professor from the University of Iowa, and on obstetrics, when the guest speaker was Dr. W. D. Keettel, also of the University.

Crawford County held monthly meetings and occasionally had speakers. The doctors held a golf tournament in May. The Society conducted a 13-week radio program on which Crawford County doctors answered questions submitted by lay people.

Ida County Medical Society held the usual number of meetings. It put on a polio vaccination program in the five towns of the County, at which persons through 19 years of age and pregnant women were inoculated.

Buena Vista County Medical Society held three meetings during the year. Plymouth County Medical Society held monthly meetings in connection with hospital staff sessions.

No reports were received of the activities of the county Auxiliaries.

PAUL W. BRECHER, M.D., *Councilor*

Deputy Councilors:

T. E. SHEA, M.D., Buena Vista
JAMES TIERNEY, M.D., Carroll
D. E. KOSER, M.D., Cherokee
R. M. JOHNSON, M.D., Crawford
R. E. UNDERRINER, M.D., Ida
H. L. GANZHORN, M.D., Monona
H. L. VANDER STOEP, M.D., Plymouth
DON MICHAELSON, M.D., Sac
D. B. BLUME, M.D., Woodbury

FIFTH DISTRICT

In the Fifth Councilor District this has been a year of consolidation and reinforcement of positions of strength attained through the conflicts of the preceding two years. The District is facing toward the problems of the future.

The settlement of the physician-hospital differences has not produced complete harmony between the two factions. Progress, however, is now evident in attaining compliance with the spirit of the enabling act passed by the last Legislature. Hospital staffs and hospital boards of trustees are cooperating to shift laboratory and radiology functions into the category of medical services. A number of hospitals in this District have successfully achieved this transition. Others are wrestling with the problem.

During the last state meeting, the House of Delegates arrived at a decision to expand the coverage of Blue Shield, and to put deductible features into some of the new contracts. Ten months have now passed. A number of physicians in this District are asking when the new contracts will appear.

On the political horizon looms the Forand bill. Unless the urgency of defense expenditures causes drastic curtailment of "health and welfare" legislation, it appears that one more giant stride may be achieved in the process of piecemeal socialization. Organized Medicine has taken too much time in evolving a workable voluntary health insurance plan for the aging people. Time is now at a premium.

This District is fortunate in having vigorous Woman's Auxiliaries in all except two of its nine counties. These organizations continue to perform well in the fields of public relations and civic affairs.

I wish to express my sincere appreciation to the deputy councilors of the District for their valued assistance and cooperation.

BRUCE F. HOWAR, M.D., *Councilor*

Deputy Councilors:

RALPH L. WICKS, M.D., Boone
GLENN S. ROST, M.D., Calhoun
ALLAN G. FELTER, M.D., Dallas
ELVIN D. THOMPSON, M.D., Greene
WILLIAM A. SEIDLER, JR., M.D., Guthrie
WILLIAM B. MCGAHEY, M.D., Hamilton
MAURICE T. BATES, M.D., Polk
JOHN D. CONNER, M.D., Story
CHARLES J. BAKER, M.D., Webster

SIXTH DISTRICT

All societies of the Sixth Councilor District have carried on the usual activities during the past year. They have been diligent in their sponsorship of the tuberculosis survey and of the immunization campaigns.

The physicians are active in fulfilling their civic and legislative responsibilities, locally as well as on the state and national levels.

The Woman's Auxiliary is to be commended for its fine work in those counties where it maintains active groups.

Several counties went on record with the State Society opposing the purchase of important immunization products by lay groups for administration to their employees. It was recommended that all such purchases and administration be under direct supervision of competent local medical authority.

Black Hawk County reports a fine addition of 45 beds, a cafeteria, and a recreation facility for the school of nursing at Allen Memorial Hospital, Waterloo.

I wish to express my sincere appreciation to the deputy councilors of the Sixth District for their continued cooperation and valued assistance.

S. D. PORTER, M.D., *Councilor*

Deputy Councilors:

N. C. KNOSP, M.D., Benton
C. D. ELLYSON, M.D., Black Hawk
E. A. REEDHOLM, M.D., Grundy
L. F. PARKER, M.D., Hardin
T. V. NEIMANN, M.D., Poweshiek
C. F. WATTS, M.D., Iowa
J. W. FERGUSON, M.D., Jasper
R. C. CARPENTER, M.D., Marshall
A. J. HAVLIK, M.D., Tama

SEVENTH DISTRICT

During 1957, the activity of the component counties of the Seventh District increased. The larger counties, viz. Clinton, Dubuque, Johnson, and Linn, held monthly meetings throughout the year, with the exception of July and August. At these meetings, excellent scientific programs were presented by speakers from within the state and from widely scattered geographic areas. Adjoining counties with smaller medical populations frequently availed themselves of the programs presented at the large-county meetings. The smaller counties in the district usually have scientific meetings on a bimonthly basis, and have been active also in supporting legislation vital to the interests of doctors.

Clinton County Medical Society has assisted during visits of the Red Cross Bloodmobile and has continued to work with the rheumatic fever prevention program and the tuberculosis screening effort. Dr. Fred Sternagel, president of the Iowa State Medical Society, spoke at the Clinton County meeting of the Medical Assistants group. The County Society approved the publicity of the Salk vaccine program. There was also a special observance of the centennial of the founding of the Clinton County Medical Society.

During the past year, the Jones County Medical Society has been active in projects designed for the betterment of the commonwealth.

Cedar County in the year 1957 has been busy with the usual activities and has also supported the work of Dr. H. E. O'Neal in writing to congressmen in support of vital legislation.

Dubuque County has helped in co-sponsoring the heart program, and the members of the Society participated in the Asian influenza vaccine program. Members of the Dubuque Boys' Club were given physical examinations, and the individual adjudged most healthy was awarded a $25.00 prize by the County Society. The well-baby clinic has been staffed by members of the Society for the past year, and many of the doctors have appeared before various civic groups to discuss health topics.

The Johnson County Medical Society, which has the second largest membership of all the units composing the Iowa State Medical Society, was very productive throughout the year 1957. In May, the Society met with the Iowa City Ministerial Association to hear Dr. Granger Westberg, of the University of Chicago, discuss the "Interrelationships of Physicians and Clergymen." With the Iowa Heart Association, the Society co-sponsored an annual public forum on heart disease.

During the year 1957-58, the Delaware County Medical Society met every other month in connection with the staff meetings of the Delaware County Memorial Hospital. The Society cooperated with the latter group in the setting up, equipping and operating of a new wing of the hospital. The Society took part in National Diabetic Week by giving free urinalyses to all patients, and it has continued its emergency call service by maintaining a list of available doctors at both the hospital and the telephone office. A joint meeting was held with the Delaware County Bar Association for the purpose of viewing the movie "Medical Witness." The showing was followed by a general discussion, and both groups felt that such meetings should be held annually.

The activity of the Buchanan County Medical Society has centered around the construction of a new addition to People's Hospital, at Independence, which was completed on November 1, 1957. The new addition affords 15 more patient beds on the first and second floors, along with waiting rooms on both floors. The basement of the new addition provides space for the laboratory and x-ray facilities, as well as a cast room and storage space for fracture supplies, etc. The space formerly occupied by the laboratory and x-ray sections now houses central supply and record rooms. Furthermore, a pediatric section was made available in the old section of the first floor of the hospital. A member of the Society, Dr. R. L. Knipfer, was made president-elect of the Iowa Chapter of the American Academy of General Practice in the fall of 1957.

I should like now to extend my personal thanks to the deputy councilors who have made my task more enjoyable and who have worked long and hard to further the aims of the Iowa State Medical Society.

C. E. RADCLIFFE, M.D., *Councilor*

Deputy Councilors:

D. F. WARD, M.D., Dubuque
H. J. JONES, M.D., Linn
P. J. LEEHEY, M.D., Buchanan
V. W. PETERSEN, M.D., Clinton
R. E. CLARK, M.D., Delaware
T. M. REDMOND, M.D., Jones
H. E. O'NEAL, M.D., Cedar
L. H. JACQUES, M.D., Johnson
O. L. FRANK, M.D., Jackson

EIGHTH DISTRICT

The Annual Report of the Eighth Councilor District is limited to certain counties because only three Deputy Councilors forwarded any information about their localities. However, the over-all picture is quite satisfactory.

There have been no known physician-hospital difficulties during the past year.

All county societies have been meeting as usual, and most counties have had very satisfactory scientific programs. In Henry County the Auxiliary meets with the Society, and in Muscatine County the hospital staff meeting and the County Society meeting are held in conjunction with one another.

The Scott County Medical Society marked the beginning of the second century of organized medicine in that county. The main project of the Society was the Scott County Blood Bank. The blood insurance plan, now a year old, provides a "walking blood bank," and more than 7,000 family groups have enrolled in it. The scheme is designed to fill the blood requirements of almost 28,000 residents of the county. At this time, the above 7,000 have all been typed and have agreed to donate a unit of blood not oftener than once in two years.

As a result, the Blood Bank has been able to reduce the discard rate to a negligible quantity, and any saving in the operation of the Bank will be passed on to the people of the community through a lowering of the service charge to those who require transfusions.

The year 1957 marked the passing of Pine Knoll Tuberculosis Hospital, in Scott County, because the relatively few patients failed to justify the costs of maintenance. The Scott County Isolation Hospital now faces the same prospect.

J. H. SUNDERBRUCH, M.D., *Councilor*

Deputy Councilors:

J. F. Foss, M.D., Des Moines
W. H. MEGORDEN, M.D., Henry
J. W. CASTELL, M.D., Jefferson
G. H. ASHLINE, M.D., Lee
R. L. FEIGHTNER, M.D., Lee
———————., Louisa
K. E. WILCOX, M.D., Muscatine
T. W. McMEANS, M.D., Scott
KIYOSHI FURUMOTO, M.D., Van Buren
G. E. MONTGOMERY, M.D., Washington

NINTH DISTRICT

The councilor of the Ninth District takes this opportunity to thank the deputy councilors for their cooperation during the past year and requests their continued assistance and advice.

The Appanoose County Medical Society held 12 regular meetings during 1957, and there were scientific programs at all of them. The Society cooperated with the Heart Association for a public forum on "The Cardiac in Business." The doctors of the county have also cooperated with the Cancer Society, T.B., Heart and Polio Associations, by serving on their boards. They continued their public school health program, including inoculations, office examinations of all preschool children and complete physicals for all freshmen, new students and athletes.

The Davis County Medical Society held regular monthly meetings in 1957, and during the year it sponsored a series of advertisements in the local papers concerning the medical society and profession. Among the group's activities throughout the year were physical examinations for all athletes in local high schools, annual physicals for the 4-H girls and boys, polio inoculations for all school children, assistance in the organization of a Davis County Chapter of the Iowa Heart Association and joint meetings with the local clubs.

The Keokuk County Medical Society had its annual meeting in January, 1958. Its activities for the year included participation in the polio inoculation program and cooperation with the county health nurse's office, which was established last year.

The Lucas County Medical Society held eleven scientific and business meetings during 1957. The doctors of the county have cooperated with the Polio, Heart, and T.B. Associations and the Crippled Children's Clinic.

The Mahaska County Medical Society held 10 regular meetings during 1957, which included joint meetings with the Mahaska County Bar Association and Dental Society. The doctors cooperated with the Cancer Society, T.B., Heart and Polio Associations, as well as the Crippled Children's Clinic, and it has continued to sponsor the A.A.P.S. essay contest. The Woman's Auxiliary was very active during the year and assisted in numerous projects. Doctors' Day will be observed on March 30, with appropriate newspaper and radio coverage.

The Marion County Medical Society held quarterly meetings during 1957. Consideration was given to the idea of joining with some of the other smaller counties to facilitate meetings, especially with scientific programs.

The Monroe County Medical Society conducted a school polio clinic on a fee basis, and the money was donated to the Monroe County Hospital for furnishings.

The Wapello County Medical Society held 10 regular sessions and one special meeting, which included a joint meeting with the Wapello Bar Association. The Society sponsored a junior baseball team, known as the "Medical Society Indians." Dr. J. A. Traister, Eddyville, Dr. Maude Taylor, Ottumwa, and Dr. E. B. Howell, former councilor of the Ninth District, were voted life memberships in the County Society and recommended to the State Society for life memberships.

The Wayne County Medical Society held 10 scientific meetings during 1957. Activities for the year included planning of the county polio program.

GEORGE S. ATKINSON, M.D., *Councilor*

Deputy Councilors:

E. A. LARSEN, M.D., Appanoose
H. J. GILFILLAN, M.D., Davis
R. G. GILLETT, M.D., Keokuk
A. L. YOCOM, M.D., Lucas
R. L. ALBERTI, M.D., Mahaska
DEXTER HAKE, M.D., Marion
D. N. ORELUP, M.D., Monroe
C. RAY PHELPS, M.D., Wapello
D. R. INGRAHAM, M.D., Wayne

TENTH DISTRICT

As has been the practice for many years, most of the meetings of Tenth District county medical societies have been held in conjunction with hospital staff conferences, and in some instances the meetings have been "titular."

There has been some slipping as regards postgraduate education in our region in the past year, for the once quite active Southwestern Iowa Medical Society has become defunct because of lack of interest. Thus, members have been left to shift for themselves. I feel this is a definite step in the wrong direction.

The implementation of House File 21 has been long and arduous, but in all hospitals in the region save one, the spirit of the law has been met, if not its exact letter.

I might report that in some instances the law has actually done what the Medical Society had hoped it would—namely, to raise the standard of laboratory and/or x-ray (diagnostic x-ray) facilities and interpretation. It seems that with the negotiations which now are under way and with the betterment of both laboratory and x-ray facilities in hospitals, we can expect further steps forward in improving the supervision of these facilities.

Some interest has been aroused for the idea of offering a course for the technicians of the region. This is a very direct outgrowth of House File 21.

HAROLD J. PEGGS, M.D., *Councilor*

Deputy Councilors:

A. J. GANTZ, M.D., Adair
J. C. NOLAN, M.D., Adams
G. B. BRISTOW, M.D., Clarke
E. E. GAMET, M.D., Decatur
J. E. EVANS, M.D., Madison
H. J. HAUSHEER, M.D., Ringgold
R. W. BOULDEN, M.D., Taylor
H. J. PEGGS, M.D., Union
C. A. TRUEBLOOD, M.D., Warren

ELEVENTH DISTRICT

The medical societies of Pottawattamie, Montgomery, Cass and Page Counties held regular monthly meetings, except for a summer break. Harrison and Mills Counties each held four meetings during the year. Shelby County held one regular county medical meeting, although the group met monthly as a hospital staff. Fremont County had no meetings during the year. The Harrison and Mills County Societies are to be congratulated for the enthusiasm shown despite their small size and former apathy. Audubon County held seven meetings.

Montgomery County had two scientific programs; Cass County had ten; Page County had eight programs with speakers; and Audubon County had three scientific programs, two of which were the showing of Grand Rounds films. Shelby County had one scientific program. In addition to its regular meetings, Pottawattamie County held its annual Iowa-Nebraska Medical Assembly in March, with a symposium on heart disease, and Page County sponsored its annual fall program, to which all the doctors in the district were invited. There were four speakers from the SUI and Kansas University medical schools.

Most of the county medical societies cooperated with blood bank visits. Mills County had a TB patch test screening for school children.

There were active Auxiliaries in Pottawattamie, Cass, Montgomery, Page and Shelby Counties.

CHARLES H. FLYNN, M.D., *Councilor*

Deputy Councilors:

H. K. MERSELIS, M.D., Audubon
ROSCOE M. NEEDLES, M.D., Cass
A. ROY WANAMAKER, M.D., Fremont
A. C. BERGSTROM, M.D., Harrison
M. L. SCHEFFEL, M.D., Mills
EDWARD L. CROXDALE, M.D., Montgomery
KENNETH J. GEE, M.D., Page
G. H. PESTER, M.D., Pottawattamie
JOSEPH H. SPEARING, M.D., Shelby

Reports of Standing Committees

REPORT OF THE COMMITTEE ON LEGISLATION

The Supplemental Report of the Committee on Legislation was presented to the House of Delegates at the Annual Meeting in April, 1957, just a few days prior to the final adjournment of the 57th General Assembly of Iowa. Of the 1,101 bills that were considered by the Assembly, 149 were followed by the ISMS Committee on Legislation because of their importance to Iowa physicians. Of the 1,101 bills considered, 321 were passed; of the 149 bills followed by the ISMS Legislative Committee, 36 were enacted. Items touched upon in the 1957 Supplemental Report will not be mentioned in this discussion.

The Vendor Payments Bill (H.F. 392) was enacted, providing for an increase in social welfare compensation for medical care, to be matched by federal funds and to be paid direct to the physician. Under this legislation, funds are now available for recipients of old age assistance and aid to the blind at the rate of $6.00 per month per recipient. In cases of aid to dependent children, funds are available at the rate of $3.00 per month for each such child.

Despite the interest in mental health legislation, most of the mental health bills failed to pass. Approximately $165,000 was appropriated, however, to strengthen the Department of Psychiatry of the State University of Iowa, and a fund of $75,000 was created for research in mental health under the direction of the medical director of the State Psychopathic Hospital. Also, a fund of $250,000 was created for the employment of psychiatrists and other trained personnel at Board of Control institutions. In addition, a bill was passed to permit the appointment of non-medical people as superintendents of the institutions at Woodward and Glenwood. This undesirable legislation was provoked by the present shortage of psychiatrists.

A Nursing Home Bill (H.F. 572) was passed which provides for licensing, inspection and regulation of nursing homes and custodial homes.

The Board of Health Reorganization Bill (H.F. 144), which would have given actual administrative authority to the State Board of Health, instead of having that body serve in an advisory capacity to the Commissioner of Health, failed to pass. This bill would also have increased the membership of the Board of Health so as to permit representation from groups or professions other than the medical. Amendments filed on behalf of optometrists, chiropodists and chiropractors created problems which resulted in the death of this bill.

No action was taken on the two chiropractic bills, and it is encouraging to note that neither of them was ever placed on the calendar of either house.

A breakfast for ISMS legislative contact men held during the Annual Meeting in 1957 was well attended. Dr. E. B. Howard, assistant secretary of the American Medical Association, was the principal speaker.

The poll which was taken in April, 1957, to determine the attitude of Iowa doctors toward the inclusion of physicians in the Social Security Program yielded a good return of questionnaires. Approximately 1,052 physicians replied, half of whom indicated that their age was 45 or under. The answers were as follows:

No.	*Question*	*Yes*	*No*	*No Opinion*
1a	"Do you favor physicians being included under the Social Security (OASI) Plan on a voluntary basis?"	577	243	232
1b	"Do you favor physicians being included under the Social Security (OASI) Plan on a compulsory basis?"	123	438	491
2	"Do you favor the Jenkins-Keogh Bill which would allow physicians and other self-employed persons to bank money for their own pension plans on a tax deferred basis?"	912	53	87
3	"Do you favor compulsory in-			

clusion of physicians under Social Security if neither voluntary inclusion nor the Jenkins-Keogh Bill is approved by Congress?"	355	597	100

These results indicate that the majority of physicians oppose compulsory inclusion of physicians under Social Security, regardless of congressional action on voluntary inclusion or the Jenkins-Keogh Bills.

The second session of the 85th Congress began in January, with considerable interest in health legislation. The most important item of health legislation, as far as physicians are considered, is the Forand Bill, which was introduced on August 27, 1957, by Representative Forand, Democrat from Rhode Island. The bill provides for three major revisions of the Social Security program: (1) It would initiate payments for hospital care, nursing care and surgery on behalf of persons eligible for retirement or survivorship benefits under the Old Age and Survivors' Insurance program. (2) It would call for an increase in the base for Social Security tax, so that employees would be taxed up to the first $6,000 of earnings, rather than up to $4,200 as at present. (3) It would provide for an increase in dollar benefits payable to workers, their dependents and survivors. Congressman Forand estimates that under this proposal some 12 or 13 million persons could receive medical protection payments in the first year.

The bill would provide for the payment of the cost of hospital care for 60 days in any year in semi-private accommodations, and nursing home care up to a combined total of 120 days in a 12-month period. Necessary surgical care, but not elective surgery, would be provided, and the beneficiary might choose any surgeon certified by the American Board of Surgery or a member of the American College of Surgeons. The only exception to this rule would be in cases of emergency. Physicians would be paid in such amounts as might be prescribed in regulations promulgated by the Secretary of Health, Education and Welfare. Besides increasing the base on which wage earners are taxed from the present $4,200 to $6,000, the bill would increase the present rate of contribution by employees and employers by one-half of one per cent each in 1959, and the self-employed would pay three-quarters of one per cent more, based on the proposed $6,000 annual maximum. By 1975, the rate of tax for employees would be 4¾ per cent, and a like tax would be imposed on the employer, for a total of 9½ per cent of wages up to $6,000 annually. For the self-employed person, the tax would be equal to 7⅛ per cent of the first $6,000 of self-employed income, and the maximum payment would be $427.50 annually.

This bill and legislation similar to it are being actively opposed by the American Medical Association. Coupled with this opposition, however, is the creation of a task force which has been given responsibility for developing information about the health problems of the aged. The AMA is also actively endeavoring to interest Blue Cross and Blue Shield and commercial carriers in developing contacts which will provide better health coverage for older people. The AMA, in addition, is undertaking a research program in the area of financing the health costs of the aged.

The congressmen and senators from Iowa have been told of the opposition of the Iowa State Medical Society to this legislation, and communications have also been sent to members of the House Ways and Means Committee.

A number of talks have been given to county medical societies over the state, explaining this bill. It is not yet clear whether or not the Forand Bill will come up for hearings this spring. If so, an active campaign against the bill will be undertaken.

The Jenkins-Keogh Bills (H.R. 9 and 10), which would permit the retirement funds of self-employed persons to remain tax free until the time at which they are spent, are still in the House Ways and Means Committee. Hearings have been held, however, and it is hoped that they will be considered during this session. They are being actively supported.

The Committee on Legislation wishes to express its appreciation for the excellent cooperation received from the legislative contact men during the past year. Special recognition should be given to the excellent work of Mr. Robert Throckmorton, our legislative counsel, and Mrs. Dorothy Dolk, secretary to the committee, as well as the cooperation received from Mr. Donald L. Taylor, the executive secretary of the Society. As chairman, I wish to thank the members of the Committee for their attendance at meetings and their continuing interest in the affairs of the Committee.

F. C. COLEMAN, M.D., *Chairman*

NECROLOGY COMMITTEE

The following members of the Iowa State Medical Society died during 1957:

	Age
Wesley H. Acker, Waterloo	66
Oliver L. Babcock, Albert City	36
Howard C. Boyer, Council Bluffs	85
Raymond A. Burnside, Des Moines	62
Carl H. Carryer, Des Moines	77
Harold P. Cole, Thurman	69
Lewis F. Crain, Deep River	84
Charles H. Cretzmeyer, Algona	80
Clarence A. Darrow, Dubuque	49
Leon E. Dawson, Des Moines	66
Joseph L. Doyle, Sigourney	53
Merrill O. Eiel, Osage	54
John G. Evans, New Hartford	91
Howard D. Fallows, Mason City	74
George H. Finch, Des Moines	62
Samuel T. Foster, Adel	84
W. John Foster, Cedar Rapids	34
Adolph R. Frederickson, Lansing	69
Rasmus R. Gaard, Radcliffe	78
Frank L. Griffin, Baldwin	75
Grove W. Harris, Marshalltown	76
Edward B. Hoeven, Ottumwa	64
Ernest M. Kersten, Fort Dodge	65
Augustus B. Kuhl, Davenport	80
Raymond R. Kulp, Davenport	78
Frederick H. Lamb, Davenport	69
Jacob N. Lande, Sioux City	64
Frederick S. Leonard, Dubuque	76
Arthur W. Lundvick, Iowa City	80
James T. McBride, Des Moines	86
Willis L. McConkie, Carroll	63
Roy A. McGuire, Fairfield	77
Charles W. McLaughlin, Washington	87
M. Charles Mackin, Des Moines	91
James G. Macrae, Coldwater, Michigan	72
Wayland H. Maloy, Shenandoah	61
Pearl L. Marble, Liscomb	85
Stella M. Mason, Mason City	96
Harootune A. Minassian, Des Moines	90

Charles H. Morse, Eagle Grove 101
Richard V. Owen, Washington 34
Alfred S. Price, Des Moines 77
Albert C. Reynolds, Des Moines 85
F. LeRoy Roberts, Corona, California 64
Ralph J. Selman, Ottumwa 70
Edwin R. Shannon, Waterloo 85
Alfred J. Staudt, Waterloo 59
William L. Stewart, Mediapolis 71
Charles I. Taylor, Pomeroy 86
Harry L. Walker, Cedar Rapids 94
James W. Woodbridge, Madera, California 88
Henry C. Young, Bloomfield 88
Arlo R. Zuercher, Cedar Rapids 67

MEDICO-LEGAL COMMITTEE

This Committee has not held a meeting, but one is planned prior to the Annual Meeting in April, and a supplemental report will be presented to the House of Delegates.

The Medico-Legal Committee will report its recommendations to the House of Delegates concerning a resolution referred to it which asks the Committee to study the advisability of the Iowa State Medical Society's establishing a medical defense fund, to be created by the assessment of $1.00 per year from each member of the Iowa State Medical Society. On authority of a proper ISMS committee, this fund could be used in aiding the defense of a member involved in a malpractice allegation.

V. C. ROBINSON, M.D., *Chairman*

COMMITTEE ON ARTICLES OF INCORPORATION AND BYLAWS

As this report is prepared, the Committee has not held a meeting, but one will be necessary prior to the Annual Meeting of the Society in April, so that the Committee may consider a recommendation from the Judicial Council that Section 1 of Article 3 of the Articles of Incorporation and Bylaws, as amended and substituted in 1957, be revised so that it is clear that all doctors of medicine who are active members of the Iowa State Medical Society must possess Iowa licenses to practice medicine.

Further, a resolution was presented at the final session of the House of Delegates, May 1, 1957, requesting this Committee "to submit to the House of Delegates at the next Annual Meeting such amendments to the Articles of Incorporation and Bylaws as may be required to create the status of honorary membership in the ISMS."

The Committee on Articles of Incorporation and Bylaws will study these recommendations and present its report to the House of Delegates in April.

PAUL F. CHESNUT, M.D., *Chairman*

COMMITTEE ON MEDICAL SERVICE

The Committee on Medical Service in the past year has experienced the impact of the changing times primarily through its oldest subcommittee, that of Prepayment Medical Care. Since the inception of the Medicare program, the development of the Iowa Relative Value Fee Schedule and the recent changes in the Iowa Medical Service contracts, that Subcommittee has met on many occasions, and its members have held frequent additional conferences by telephone. Besides, because of its closeness to the economics of our day, that Subcommittee has received the greatest number of communications, many of which were occasioned by misunderstandings or misinterpretations of the services and fees concerned in the respective schedules. I should like to express my appreciation for the tireless efforts of Dr. W. C. Eller and his associates on that Subcommittee. Neither sacrifice of time nor the tedium of travel weakened their seriousness of purpose, and the Society as a whole should be truly grateful for their devoted service. I am sure that in his report, Dr. Eller will mention some of the difficulties which they experienced.

The Subcommittee on Veterans' Affairs, with Doctor R. C. Gutch as chairman, has been exploring the Home Care Program and will, I am sure, come up with proposals to enlighten our decisions regarding this debatable facet of medical care. Is it no more than a step away from institutional socialized medicine?

The Subcommittee on Medical Services to the Indigent, under the able chairmanship of Dr. Isaac Sternhill, has been occupied with the problems created by Public Law 880, but with the cooperation of the Iowa Division of Vocational Rehabilitation has had fairly smooth sailing. The attention of the profession will be called again to the provisions of this law.

Finally, the Subcommittee on Hospital and Professional Relations, of which Dr. W. L. Downing, our esteemed past-president, is chairman, has had a comparatively quiet year, following years of what seemed like a hopeless confusion of ethics and economics. This area is now reasonably free of controversy, and with men of sincerity and integrity such as we now have at our helm, I think it will remain so.

The chairman of the Medical Service Committee met with the subcommittee chairmen on two occasions in the past year, and also attended the North Central Conference on Medicare Problems in St. Paul on January 5, 1958.

As someone before me has said, "If there is any reward to be had, I hope it will be the ability to do better." May I again express special gratitude to the subcommittee chairman and their committee members.

C. H. STARK, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL SERVICES TO THE INDIGENT

No specific problems have been referred to our Committee since the last annual meeting of our Society.

The Public Assistance Act, a measure which provided certain federal moneys for indigent care to states that made arrangements for matching state grants, became effective July 1, 1957.

Because Iowa has made no such arrangements, it will not be necessary for our Committee to devote time and effort to this matter until more favorable activity and interest has been indicated by our state legislature.

I. STERNHILL, M.D., *Chairman*

SUBCOMMITTEE ON PREPAYMENT MEDICAL CARE

The Prepayment Committee expects to have another meeting between now and the ISMS Annual Meeting, and to make that meeting the subject of a supplemental report.

As incidental information, I might mention that 140,000 copies of the Standard Claim Form devised by this Committee have been placed in the hands of physicians in this state in compliance with their requests. This demand would seem to indicate widespread acceptance of the form.

Matters that have been referred to this Committee are as follows: (1) The Mahaska County Survey has been completed. It has given us information on the existing health facilities in this sample county and the economic means that people have utilized to pay for their medical care. These data are being processed at Iowa State College, and we expect the results to be available for inclusion in our supplemental report. (2) The problem of establishing fee and/or utilization committees at the local level was presented to the parent Committee on Medical Service, and it was that group's recommendation that the matter be referred to the Executive Council for appointment of such committees at the district or county level through the councilor and deputy councilor, in the proper chain of administration. (3) As an outgrowth of last year's appointment of a representative from the commercial insurance industry as a consultant to the Prepayment Committee, a meeting has been arranged between the members of Subcommittee on Prepayment Medical Care and similar representatives from the commercial insurance industry to discuss mutual problems. Any results of this joint meeting, which we hope will be the first of many, will be made a part of our supplemental report.

The current status of Iowa Medical Service (Blue Shield) will be presented as a part of our Committee's supplemental report.

WILLIAM C. ELLER, M.D., *Chairman*

SUBCOMMITTEE ON VETERANS' AFFAIRS

The National Conference of Veterans' Affairs was held in Chicago on January 26, 1957, with representatives from throughout the central region in attendance. Among the problems discussed were the abuses of hospitalization by veterans with non-service-connected ailments. Both general and neuropsychiatric patients, in many instances, are entitled either or both to some health and accident insurance and to some workmen's compensation benefits. In consequence, during 1956, the VA facilities billed health and accident and workmen's compensation insurance agencies for almost $12 million, and collected almost $2.5 million. The expense of collection was not revealed.

Your representative requested discussion relative to the consultants who are paid on a fee basis for participating in the care of patients with non-service-connected disabilities, and was told by Dr. Louis M. Orr (Orlando, Florida) that such matters would be taken up later. However, the subject was never referred to again. It is my impression that it should be explored.

I have received a few complaints from ISMS members relative to the hospitalization of patients with non-service-connected disabilities, and in reply I have mailed to them copies of the following, which appeared on page 29 of the AMERICAN LEGION MONTHLY for February, 1957:

"According to wire-service reports in December, WW I vet, John Petrick, Caldwell (Kans.) farmer, was fined $2,499 by a U. S. District Court for falsely stating that he was unable to pay for *non-service-connected* care at the Wichita VA Hospital. . . . Petrick is reported to be the first person to be successfully prosecuted under such charges. . . . To enter a VA Hospital for care for non-service disabilities, a vet must file a statement of *inability to pay* for the care privately, and a summary of his *income and assets*. . . . Petrick was reported to have admitted holding property and cash worth $55,000. . . . Initial accounts do not state clearly whether he was charged with falsifying his income and net worth statement or whether he was found guilty simply for asserting his inability to pay after correctly stating his worth. . . . Fine was assessed by visiting Judge W. R. Wallace of Oklahoma City, in a non-jury hearing for violation of the U. S. Civil False Claims Act. . . . For nearly 30 years non-service-connected care in VA hospitals has been available to vets who state their inability to pay, if beds are available. . . . Claims that a significant number of veterans have falsified their ability to pay have never stood up under investigation, although a small number of indefensible cases have persistently occurred."

At the meeting of the Medical Service Committee on January 25, 1958, it was suggested that we explore the possibility of again getting a VA Home Town Care program in Iowa, with the State Society acting as intermediary between government and physician. Eight states had it last year, and we are requesting information relative to the success of the plan in those states.

R. C. GUTCH, M.D., *Chairman*

SUBCOMMITTEE ON HOSPITAL AND PROFESSIONAL RELATIONS

As of the date of this report, no meetings of this Subcommittee have been held.

The scope of the group's activities is two-fold. First, it is charged with handling problems between the hospitals of Iowa and members of the medical profession as well as the state organization. Its second sphere is problems among members of the profession. Apparently there have been no problems that could not be settled amicably without referral, since no requests for help have been received.

As is well known, major problems between the hospitals of Iowa and the doctors have been numerous in recent years. Some of them are still unresolved. These major disagreements have been compromised or otherwise settled at a level higher than that of the Subcommittee, with either the Board of Trustees or a special committee handling the negotiations. This is no doubt as it should be.

A proposal was made on May 1 of last year that an occasional meeting be held between our Hospital and Professional Relations Subcommittee and a similar committee of the Iowa Hospital Association. The I.H.A. has set up no such committee, and nothing has come of the suggestion.

W. L. DOWNING, M.D., *Chairman*

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee's main project during the year has been the arrangement of regional postgraduate education meetings.

A meeting was held in Iowa City last June with

Dr. William Keettel, director of postgraduate education for the SUI College of Medicine, at which the results of his survey concerning the desirability of holding such courses were reviewed. It was found that the doctors in the state favored regional postgraduate meetings. Specific recommendations were: (1) that the meetings should be held in the fall or spring; (2) Wednesday or Thursday would be the best day; and (3) the program should begin in the afternoon, and a dinner and an evening program should follow. The subjects which evoked the most interest included internal medicine, obstetrics and gynecology, pediatrics, surgery and orthopedics.

On the basis of this survey, the Committee made arrangements to hold trial meetings in two areas. As of February, 1958, specific arrangements had been made to hold a postgraduate course in Fort Dodge in cooperation with the Webster County Medical Society. There will be lectures by three speakers in the afternoon, then a dinner and finally an evening lecture. Doctors from 20 counties will be invited to attend. Contact was also made with the Black Hawk County Medical Society, and originally plans were started for a meeting to be held at Waterloo in the spring, but now it has been postponed until fall.

The Committee is pleased to report that a bill was passed by the legislature liberalizing the existing law pertaining to the issuance of temporary resident-physician licenses. Among other things, it authorizes the licensee to serve as a resident only, under the supervision of a licensed practitioner of medicine and surgery in an institution approved for this purpose by the Board of Medical Examiners. The license is valid for one year and may be renewed annually at the discretion of the Medical Examiners for a period not to exceed six additional years. The licensee must be a graduate of a medical school, but is no longer required to be a graduate of an approved medical school.

LEE F. HILL, M.D., *Chairman*

GRIEVANCE COMMITTEE

The Grievance Committee of the Iowa State Medical Society has continued to function during the past year very much as it had in the past. The Committee meets at intervals varying from four to eight weeks to consider problems which have arisen.

For the most part, the members of the Society have been very cooperative in answering our requests for information. There are a few exceptions, but the matters involved are ones which we hope soon will be ironed out.

The number of complaints presented to the Grievance Committee stays about the same from year to year. A good proportion of them are without merit, but they require study just the same. A number of the grievances are based upon misunderstandings of the function of the Committee.

As our work is necessarily confidential, it is impossible for me to make a full report on the cases handled.

In conclusion, may I state that the members of the Society can avoid trouble if they are painstakingly fair with their patients, keep complete records on their cases, and are not in too much of a hurry to collect delinquent accounts.

F. N. COLE, M.D., *Chairman*

COMMITTEE ON PUBLIC HEALTH

The Public Health Committee has interested itself in the problem of physician participation in health planning.

Since World War II, the focus of public health activity has shifted from sanitation to "environmental health." This latter virtually encompasses the field of preventive medicine. So that Iowa's program might be made to conform to the new pattern, the policies and plans of other states were considered.

At the present time the most practical plan seems to be one that has been developed by the Medical Society of the State of Pennsylvania, and since Pennsylvania is known as the Keystone State, its scheme has been dubbed "The Keystone Plan." It has received recognition from the U. S. Public Health Service and the American Public Health Association, and it has been given financial grants of over $100,000 by the Mellon Fund.

The ISMS Executive Council has encouraged the Public Health Committee to continue its study of the Keystone Plan. At the time of the AMA Interim Session in Philadelphia early in December, 1957, three Iowa representatives were able to study the plan firsthand. Mr. Elwell, executive secretary of the Pennsylvania Society, arranged for Dr. Fred Sternagel, Dr. W. D. Abbott, Mr. Wilbur R. Quinn and me to attend a meeting of his organization's Public Health Committee, of which Dr. Pascal F. Lucchesi is chairman, at the Albert Einstein Medical Center.

This Committee hopes that the Iowa State Medical Society will develop a plan of its own. With that objective, the Committee is preparing a supplemental report to be read before the House of Delegates.

E. A. LARSEN, M.D., *Chairman*

SUBCOMMITTEE ON CHRONIC ILLNESS

For the Subcommittee on Chronic Illness, the principal problem continues to be the securing of adequate care for the aged. The proportion of elderly people in the population of the United States has doubled in recent years, and such individuals make up a large share of the number suffering from chronic illnesses.

Responsibility for finding solutions to this problem is divided among several ISMS committees and subcommittees—Patient Care, Medical Services to the Indigent, Prepayment Medical Care and Exfoliative Cytology, in addition to Chronic Illness. The facet that seems clearly to be ours, alone, is the improvement of care provided to patients in nursing and care-and-keep homes.

In January, along with Dr. W. L. Bierring, Dr. D. A. Glomset participated in a televised discussion of medical care for the elderly.

As a group, the Subcommittee is continuing to look for answers, but has no recommendations to propose at this time. It is particularly interested in the work which is being started by the Committee on Exfoliative Cytology, and since the Subcommittee on Cancer is no longer in existence, it seems reasonable that the Subcommittee on Chronic Illness should concern itself with the types of cancer to which exfoliative cytology does not apply.

HAROLD W. MORGAN, M.D., *Chairman*

SUBCOMMITTEE ON REHABILITATION

Although this Committee has not been called upon

to serve during the past year, it has remained ready to advise the Iowa Division of Vocational Rehabilitation on medical problems in connection with determining eligibility for "cash benefits" under the Old Age and Survivors' Insurance law, as amended.

The chairman of the Committee was asked by the Board of Trustees of the State Society for his opinion concerning medical representation on the Governor's Physical Fitness Committee. It was the suggestion of the chairman that a representative of the Medical Society should serve on it, and the Board of Trustees concurred by naming a member of this Committee to serve in this capacity.

The only other item to come to the attention of the chairman was a letter from the President's Committee on Employment of the Physically Handicapped, requesting the Society to nominate a candidate for the Fifth Annual Physician's Award. This award is presented by the President's Committee to a doctor who has made an outstanding contribution to the employment welfare of physically handicapped workers. The chairman conferred with a member of the Society's Rehabilitation Committee who is also a member of the Governor's Committee on Employment of the Handicapped, and after a canvass of the field, it was agreed that the Society should not nominate a physician for the 1957 award.

C. B. LARSON, M.D., *Chairman*

SUBCOMMITTEE ON MATERNAL AND CHILD HEALTH

The Subcommittee on Maternal and Child Health has been combined with the Subcommittee on Poliomyelitis. At a meeting held not long after the 1957 Annual Meeting of the State Medical Society, the Subcommittee discussed strategy for a polio vaccination campaign. It was thought at that time that publicity should be started during the late summer and early fall of 1957.

When fall came, Asiatic influenza was monopolizing the attention of the public, and it was recommended that the polio vaccination campaign be postponed until early 1958. In January and February, newspapers and radio and television stations were urged to use publicity materials provided by the National Advertising Council, and druggists were provided with displays for exhibit in their stores. In addition, through the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, doctors were told of the reminders which the AMA would furnish them for mailing to their patients.

For the remainder of 1958, the two problems which seem likely to assume most importance for the Subcommittee on Maternal and Child Health are (1) mental health and (2) the establishment of additional poison-control centers throughout the state.

R. H. MCBRIDE, M.D., *Chairman*

SUBCOMMITTEE ON EXFOLIATIVE CYTOLOGY

The group which was originally set up as a coordinating committee between the Iowa Division of the American Cancer Society and the Committee on Chronic Illness of the Iowa State Medical Society was re-established a few months ago as the ISMS Subcommittee on Exfoliative Cytology. Its membership includes representatives of the Iowa Association of Pathologists.

Both before and after that reorganization, the group has met several times. Action has been taken through the Iowa Association of Pathologists to develop facilities and train personnel for the examination of cytologic materials. In cooperation with Drake University, Dr. F. C. Coleman is establishing a school for training technicians.

Plans are being made to alert physicians to the importance and significance of this type of examination, and to prepare them for the response which is expected to follow a publicity campaign that the American Cancer Society has already started in adjacent states and will shortly begin conducting in Iowa.

In cooperation with the Iowa Division of the American Cancer Society, the Subcommittee has tentatively decided upon a pilot program in Polk and some one other county yet to be named. A restricted amount of publicity will be issued to alert the residents of those localities.

The state-wide program will be started when the Subcommittee has had a chance to profit from its experience with the pilot study, when sufficient technicians have been added to the pathologists' laboratories and when some articles on the subject have appeared in the JOURNAL.

The Subcommittee has had the enthusiastic support of all its members and of the organizations which they represent.

KENNETH R. CROSS, M.D., *Chairman*

COMMITTEE ON PUBLIC RELATIONS

During the past year the Committee re-evaluated its long-range public relations program and reached the conclusion that public relations projects should be concentrated increasingly at the local level, rather than at the state level. In June, Mr. Ray Stewart, who had been director of public relations, left the State Society. The Committee felt that thereafter, a specific department of public relations need not be maintained in the central office. Rather, it thought that consideration should be given to obtaining another field secretary. An additional man could handle a part of the work being carried on by Mr. Ged Buckles, and also help with specific projects at both the state and local levels.

In October, the Annual Conference of County Society Officers was held in Des Moines, at which time the Committee outlined several proposed public relations projects. A survey was taken at the close of the meeting to determine how these proposals had been received, and there was found to have been strong approval. On the basis of that survey, the Committee implemented the specific projects, as follows:

1. *The Medical-Radio-Press Code of Cooperation*, which had been developed and distributed in 1951 by the Iowa State Medical Society, Iowa Hospital Association, Iowa State Nurses Association, Iowa Press Association and Iowa Daily Press Association, was reprinted by the State Society in attractive pamphlet form and distributed to doctors, nurses, hospitals and news outlets. Meetings at the local level between doctors and newsmen were also encouraged.

2. Over 500 individual requests were received for a booklet entitled *What Everyone Should Know About Doctors*, and 35,000 copies were distributed. The name

The Achievements of Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

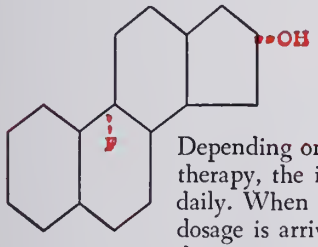
1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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Triamcinolone LEDERLE

...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

of the Iowa State Medical Society was imprinted on each booklet.

3. A billfold-size *Personal Health Record* bearing the State Society's imprint was made available to our members, and again, over 500 individual requests were received and 40,000 copies were distributed.

4. The *Standards of Practice Governing Physicians and Lawyers* has been printed in pamphlet form and will be made available to county societies to serve as a basis for discussion during doctor-lawyer meetings. It is a code developed by the ISMS Bar Liaison Committee in cooperation with a committee of attorneys, and ratified by the ISMS House of Delegates and the Iowa Bar Association in 1956.

5. The AMA *Discussion of Fees Plaque* is being utilized by numerous members of the Society, and we continue to receive orders for it.

In an effort to strengthen the value of the message contained on this plaque, we have prepared a pamphlet which explains the basis of physicians' fees in more detail, and encourages the patient to discuss financial matters with his doctor. These pamphlets, which are available in large quantities, can be mailed with monthly statements and left in doctors' reception rooms for patients to pick up.

6. In order to inform the public of the basic ideals and objectives of the Iowa State Medical Society, an attractive *Membership Plaque* has been designed with this information inscribed on it. It is hoped that every member of the State Society will display this plaque in a prominent place in his reception room or private office.

7. The Committee has long been interested in State Society sponsorship of a *State Science Fair*, and plans are now being made to make this a reality. In cooperation with the DES MOINES REGISTER AND TRIBUNE and Drake University, the State Society is making tentative arrangements to hold a science fair in Des Moines in the spring of 1959.

Besides engaging in the above-mentioned activities, the Committee has also encouraged county medical societies to conduct *Local Public Health Forums;* participated in a *Polio Inoculation Campaign* in cooperation with the National Advertising Council; and arranged the third annual *Senior Day Program* in Iowa City for senior medical students and their wives.

These are a few of the projects which this Committee initiated during the past year. We plan to continue to encourage individual doctors and county societies to utilize the materials which are made available to them, and also to implement public service and public information programs at the state level.

OTTO N. GLESNE, M.D., *Chairman*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

This Committee represented the Society at two state meetings this year—the Annual Meeting of the Iowa Interprofessional Association, and a state conference on community disaster planning. Two members of the Committee hold offices in the Iowa Interprofessional Association.

In the future this Committee may undertake the development of a Code of Understanding Between Physicians and Pharmacists. Officials of the Iowa Pharmaceutical Association have shown interest in this project, as have officers of the Iowa State Medical Society. This Committee will, of course, be guided by Medical Society policy in deciding whether or not this project has merit.

F. M. BURGESON, M.D., *Chairman*

HEALTH EDUCATION COMMITTEE

The Health Education Committee has continued to provide health information through the media of press, radio and television during the past year.

In June, Mr. Ray Stewart, who had been in charge of filming the "Medical Diary" series of programs, left the State Society. However, the Committee had built up a backlog of kinescopes and films, and though regular production of new films was discontinued, we were able to continue supplying television stations from films remaining on hand. We have over 50 films on subjects of medical interest. Arrangements have been made to film programs of special interest, and as of February, 1958, three new films had been produced. We hope to continue to produce other such films in the near future. Also, we shall cooperate with television stations in the production of live medical shows like the heart-surgery telecast which received national recognition during the Annual Meeting last year.

Seven stations showed the "Medical Diary" films from April through December, 1957. They included KRNT-TV, Des Moines; KCRG-TV, Cedar Rapids; KQTV, Fort Dodge; WOI-TV, Ames; KVTV, Sioux City; KWWL-TV, Waterloo; and KGLO-TV, Mason City. Schedule changes subsequently forced four of these stations to discontinue the ISMS films until a new place could be found for them in their broadcast schedules.

Through personal contacts with the program directors of the seven stations listed above, in the fall of 1957, it was learned that they all desire to produce their own live television series of health education programs in cooperation with their county medical societies and the State Society. It was suggested that a "Call the Doctor" format could be used. Contacts have since been made with the county medical societies which have television stations in their areas, and they have been encouraged to cooperate in the scheduling of such series. The Health Education Committee stands ready to assist in any way possible, and it is hoped that these local live programs will be initiated promptly.

The Committee has also cooperated with station KRNT-TV in promoting special medical programs.

Many county medical societies and lay organizations have asked the Society for medical films, and in complying with their requests, we have utilized both our film library and the motion picture services of the American Medical Association.

The radio health programs for which the AMA furnishes transcriptions are currently broadcast over WOI, Ames; WSUI, Iowa City; KWBG, Boone; KCOB, Newton; and KCHA, Charles City. Each program is 15 minutes in length, and there are 13 programs in a series. In some instances, the transcriptions are sent directly to the station, and in others they come to us for relay to the station. The JOURNAL OF THE IOWA STATE MEDICAL SOCIETY publishes the broadcast schedules of the Society's television programs and of the AMA radio programs that are handled through the headquarters office in Des Moines.

The *Iowa M.D.'s Say* column continues to appear in WALLACE'S FARMER. The articles written for it deal with

various medical subjects of special interest to farm people, and have been well received by the subscribers.

The Speakers' Bureau has secured speakers for six county medical society meetings and 10 lay meetings during the past year.

ROBERT B. STICKLER, M.D., *Chairman*

Reports of Special Committees

COMMITTEE ON MENTAL HEALTH

During 1957, the Committee on Mental Health worked with the ISMS Legislative Committee and with the Iowa Neuropsychiatric Society in forwarding the legislative proposals of the Governor's Committee. During the legislative session, not all of the bills were acted upon, but a satisfying degree of progress was made. State authorities have since instituted some changes in the care of the mentally ill which, along with the legislation passed, give us a good basis for preparing our 1959 legislative proposals.

In September, the Committee met with the State Board of Control in order to learn how it might be helpful in improving the care that is being given in our state institutions. The State Board of Control expressed a desire for such help, and has since appointed as state mental health director, Dr. J. O. Cromwell, who was superintendent of the Mental Health Institute at Independence.

At the instigation of the AMA Committee on Mental Health, it was decided to request the chairman of the Mental Health Committee of the Woman's Auxiliary to be present for at least one of our meetings each year. The Trustees have authorized the expenses of this attendance.

The Trustees authorized attendance of one member of our Committee at the meeting of the National Committee on Mental Health, held at the Drake Hotel in Chicago on November 22 and 23, 1957. Dr. L. B. Sedlacek attended that meeting and wrote an enthusiastic report outlining the recommendations that were made there.

Early in the year, the Mental Health Committee formulated a set of standards for the local mental health centers which are being established in the state. It is important that these standards be kept in mind by county medical societies when approving such centers, for they were subsequently adopted by the Iowa State Medical Society.

We also called the attention of the Publication Committee of the JOURNAL to the importance of printing the "Standards for Psychologists." The psychologists' area of competence is a matter in which all members of the medical profession should take an active interest, and whenever it is of particular concern to them, they should refer to the above mentioned standards.

J. I. MARKER, M.D., *Chairman*

COMMITTEE ON INDUSTRIAL HEALTH

Since the last Annual Meeting, our Committee has been primarily interested in conducting a survey of health facilities available in Iowa industrial plants with 50 or more employees. A rather detailed questionnaire was mailed to 975 firms, and 378 completed questionnaires were returned for our study. One hundred nineteen firms reported having a specific appointed physician to handle their industrial in-plant health facilities, with 25 of these physicians being employed on a full-time basis.

It was surprising to find that nearly half of the firms indicated on their questionnaires that they would very much like to meet with physicians in their respective communities to discuss industrial health problems. It is noted that 231 plants carried some form of non-occupational health insurance coverage for their employees' benefit. Two hundred fourteen of the firms indicated that they considered medical costs as "fringe benefits." One hundred thirty-eight reported that in their judgment their plants did not have good first aid facilities.

We plan to study this data further between now and the Annual Meeting, and expect to give a supplemental report of our more definitive findings.

C. J. LOHMANN, M.D., *Chairman*

COMMITTEE ON RURAL HEALTH

The Subcommittee on Rural Health has continued active in several programs, and can report some definite progress.

Last fall, the ISMS Subcommittee on Rural Health and the Preceptorship Committee of the SUI College of Medicine accelerated their campaign to recruit preceptors, in order that assignments of junior medical students could be made earlier than in previous years. Drs. R. S. Jaggard and J. E. Blumgren, of the Subcommittee, did excellent work on this project, in cooperation with Dr. S. C. Cullen, of the University. These men, along with Mr. Wilbur Quinn and other members of the Subcommittee, got in touch with many county societies in an attempt to interest a greater number of physicians in the program, and a system of registration of prospective preceptors was instituted by Mr. Quinn at the office of the State Medical Society. The actual selection of preceptors and assignment of students, however, remains a function of the Preceptorship Committee of the University, of which Dr. Cullen is chairman.

We want to express our gratitude to the Judicial Council for meeting with the Subcommittee in September, and for helping to carry out this program. Although the preceptorship program has improved, it is still important that more members of the State Medical Society should consider volunteering for this service in order that the best possible type of preceptor can be made available, and perhaps also in order that a rotational system may be instituted so as to give a one- or two-year rest to those doctors who have faithfully served during a number of consecutive years. Both preceptor and preceptee have much to gain from the preceptorship type of association.

The second State Rural Health Conference will be held on March 11, 1958, at the Memorial Union of Iowa State College. This meeting is to be co-sponsored by the Iowa State Medical Society, the SUI College of Medicine, the State Department of Health, the USDA-ISC Extension Service, the Iowa Farm Bureau Federation, the General Federation of Women's Clubs and a number of volunteer health organizations. Topics to be dicussed this year include cardiac disease and the farmer, diseases preventable by immunization, and toxic hazards among agricultural workers. The several co-sponsoring groups have cooperated admirably in telling farm people about this conference. It is needless to point out the public relations and educational value of this endeavor, both for the co-sponsoring or-

ganizations and for the people in actual attendance. We hope that a greater number of physicians will find it possible to attend this year and each future year that it may be held.

The Institute of Agricultural Medicine at SUI each year continues to receive greater and more favorable recognition, nation-wide. It has a number of programs under way, and others are under consideration. The Subcommittee is anxious to serve the Institute in any constructive way, and it urges physicians to become familiar with these programs and to cooperate fully with the Institute.

The farm-accident survey by Dr. Norval Wardell, farm safety engineer of Iowa State College, is nearing completion. The members of two county medical societies, Appanoose and Hamilton, have been cooperating in reporting each farm accident treated, even though slight, and they should be commended for taking the additional time to make this work possible. Analysis of results, it is hoped, will make a valuable contribution to the prevention of accidents in the most hazardous of all occupations—agriculture.

The establishment by the State Department of Health of a Poison Control Center at Raymond Blank Hospital has been publicized throughout the state. Its services are available to all physicians 24 hours a day. An accurate and up-to-date cataloging of all products in household and farm use, along with their toxic ingredients, is available, as well as information on the best methods of treatment if a toxic substance is involved. The phone number is ATlantic 8-7271. Physicians should visit this center for first-hand knowledge of its operation, and the same may be said of the facilities of the State Department of Health in Des Moines and in Iowa City.

Little activity has been required of the Physicians' Placement Service. There seems to be a fairly adequate and equitable distribution of physicians, but any community in need of a physician will be given help in securing one.

The Subcommittee wishes to express its appreciation to Mr. Wilbur Quinn, who has represented it at the office of the State Medical Society. In what may have been accomplished during the past year, he has done much of the advising, organizing and arrangement-making.

J. W. GAUGER, M.D., *Chairman*

COMMITTEE ON BLOOD BANKING

Since the publication of its report in the 1957 HANDBOOK, the Committee on Blood Banking has been gathering data so as to crystallize various aspects of blood-banking problems in Iowa. With the help of the State Medical Society, the technical survey has been completed, and the Committee is well pleased with the response that it secured. As a direct result of the persistence of the permanent staff at the State Society headquarters, the Committee obtained an 80 per cent return from the total of 140 questionnaires that had been sent to the hospitals.

The Committee is now actively engaged in an analysis of this information. A previous survey conducted with the assistance of the Women's Division of the Iowa Farm Bureau and designed to point up problems related to the laymen's experience with blood banks is to be analyzed in conjunction with the second, more technical, survey.

The questionnaires returned by members of the Iowa State Medical Society revealed a great preponderance of affirmative replies to questions about interest in forming an Iowa Association of Blood Banks. Therefore, with the approval of the Medical Society, this Committee is planning an organizational meeting, to which all of those who have indicated interest will be invited. This gathering will probably convene during the annual meeting of the State Medical Society.

W. S. PHETEPLACE, M.D., *Chairman*

CHIROPRACTIC COMMITTEE

Although the Chiropractic Committee has not found it necessary to meet since the 1957 annual meeting, it has faithfully performed the duties assigned to it by the House of Delegates.

The legislation proposed by the "mixer" group of chiropractors during the 57th General Assembly was not passed. There is, however, no assurance that further efforts will not be made, and for this reason, the Committee has maintained liaison with the Committee on Legislation and other groups in an effort to be kept informed.

It also appears at the time of preparation of this report that the chiropractors are not actively seeking a district-court rehearing of their suit for declaratory judgment requiring that they be recognized as "physicians," although the Iowa Supreme Court, in effect, gave them permission for such a rehearing after the district court originally dismissed the case, in May, 1956, on the basis that their suit was not worthy of consideration.

In spite of the above encouraging news, the Chiropractic Committee recommends that it be continued on a vigilant stand-by basis, in order that it may determine and deal with possible future developments.

RAYMOND BERGER, M.D., *Chairman*

DOCTORS' ASSISTANTS ADVISORY COMMITTEE

A state convention of the Iowa Association of Medical Assistants was held in Des Moines in May, 1957, at which time the organization's new constitution and bylaws were adopted. The original constitution drawn up in Cedar Rapids in 1956 had been tentative and designed to serve only temporarily. Committee members Floyd A. Springer, M.D., and Walter D. Abbott, M.D., met with the House of Delegates of the organization preceding the general business session of the convention, and Otto N. Glesne, M.D., another Committee member, attended the business session.

In August, 1957, a workshop was conducted at Kepler State Park, near Cedar Rapids, dealing with insurance claims and medical terminology. The Iowa Association of Medical Assistants plans to hold workshops dealing with office procedures each year, and to offer them in different sections of the state.

The newest chapter of the Association is in Davenport. Other chapters are located in Burlington, Cedar Rapids, Clinton, Des Moines, Fort Dodge, Iowa City, Mason City, Ottumwa, Sioux City and Waterloo.

It is the feeling of the Advisory Committee that this group has made remarkable progress. The Committee members have been impressed by the medical assistants' evident desire to keep all of their activity on a completely ethical basis, and it appears that definite progress is being made both toward increased status

for doctors' employees and toward increased efficiency in doctors' offices.

FLOYD A. SPRINGER, M.D., *Chairman*

FEE COMMITTEE

Since it first appeared a year ago, the so-called "Red Book" has aroused considerable interest among members of the profession. The Committee has had several meetings to study suggested revisions and improvements, and one good idea, in the mind of the Committee, would be to change the name from the "Iowa Reative Value Schedule" to the "Iowa Unit Fee Index." You will be given a mimeographed list of the changes which the Committee intends recommending to the House of Delegates for its approval.

The members of the Fee Committee wish to take this opportunity to express appreciation to all of the specialty groups, and especially the designated representatives of those groups, who gave of their time in appearing before the Committee, reporting the results of their deliberations and offering constructive suggestions for improvement. The Committee has tried, insofar as possible, to reflect these considerations in their first annual revision. Certain matters are still under discussion, and further refinements as a result of supplemental meetings of the Committee between now and April will be the subject of a supplemental report.

WILLIAM C. ELLER, M.D., *Chairman*

COMMITTEE ON AUTOMOTIVE SAFETY

The Committee on Automotive Safety of the Iowa State Medical Society was newly appointed during the 1957-1958 year by the president of the Society.

It spent some preliminary time gathering information from the AMA Committee on Medical Aspects of Automobile Injuries and Deaths, and from several other similar organizations. The Committee then held an organizational meeting in Des Moines, January 19, 1958. At that meeting, a program of activities restricted to the medical aspects of automotive safety was decided upon.

First, the members hope to meet with the state commissioner of public safety to discuss plans of action for this Committee and to enlarge upon points outlined by a previous commissioner.

Pending this development, the Committee decided to obtain information and embark upon a study of the use of psychological testing equipment and the procedures of licensing and re-examination which are currently being developed by Doctor A. R. Lauer, of the Driver Research Laboratory at Iowa State College.

In addition, it will undertake a study of the forms currently used by the Department of Public Safety in cases where medical information is required. In addition, it contemplated making a study of methods of helping the Department of Public Safety in licensing drivers who have disabilities. The Committee also considered issuing bulletins to remind physicians of their responsibility in telling patients about the inadvisability of their driving when they are the victims of certain disabilities or when they are under the influence of certain drugs.

With this as a base, the Committee on Automotive Safety expects to help promote automotive safety in the State of Iowa.

L. W. SWANSON, M.D., *Chairman*

COMMITTEE ON PATIENT CARE

The Committee on Patient Care has had an organizational meeting to consider the problems given it. As these problems are so complex, much further investigation must be done before a final report can be made.

A supplemental report of data accrued will be made at the meeting of the House of Delegates.

CHARLES J. BAKER, M.D., *Chairman*

OSTEOPATHIC COMMITTEE

Your Committee wishes to remind all physicians that it is an arm of the Iowa State Medical Society which is always ready and able to assist individual members and component societies in any and all problems concerning relations between doctors of medicine and osteopaths. The Committee is a repository of information and historical data, has access to competent legal counsel, and can render advice and concrete assistance when called upon.

It is well to state bluntly that, from an ideological viewpoint, we doctors of medicine have two basic criticisms of osteopathy: (1) *osteopathy refuses to renounce its unproven cultist theory of the "osteopathic lesion,"* and (2) *osteopathic education at college and postgraduate levels is inadequate.* Instead of correcting these deficiencies, the osteopaths seem to be content with whittling away at their lawful restrictions in an effort to gain legal and quasi-legal recognition for themselves as equals of doctors of medicine.

A case in point studied by your Committee is one in which an osteopath challenged a will drawn in 1935 which founded and endowed an non-tax-supported community hospital. The osteopath claimed that he should be privileged to staff membership by virtue of terms used in the 1935 will: "———————— Hospital . . . shall be free to all regularly practicing physicians and surgeons in ———————— County, Iowa." Your Committee recommended that the Iowa State Medical Society provide guidance and legal aid to the involved hospital board in an effort to defeat the court action.

In another situation, an out-of-state osteopath with an Iowa license has attempted to gain admission to the staff of a tax-supported municipal hospital nearby. This hospital is now fully accredited by the Joint Accreditation Commission.

The encroachment of osteopaths presents a difficult problem for tax-supported hospitals that have attained accreditation. Once an osteopath has been admitted to the staff, the accreditation is immediately withdrawn. Many of the public—and, unfortunately, some doctors of medicine—have little understanding of the importance of hospital accreditation. From the standpoint of hospital medical care, accreditation regulations protect the public through a system of checks and double checks so that the medical staff may evaluate and, if need be, restrict the activities of its members. When these regulations are in operation and when the work of the hospital is being checked periodically by competent, unbiased inspectors of the Joint Accreditation Commission, hospital medical care can be elevated to a level unattainable through any form of local control. Of course this is all on a voluntary basis. Accreditation is sought or maintained by the staff only through diligent effort. It is not purchased from the Joint Accreditation Commission, though some of our

lay friends seem to believe so. It behooves everyone in the profession to educate and inform the public as to the value of hospital accreditation.

Evidence shows that once accreditation has been lost, standards of medical care tend to drop to the level of the lowest common denominator, i.e. to that of the poorest-qualified staff member. One committee member, who practices in a county hospital heavily infiltrated by osteopaths, testified that since the opening of the hospital all surgical specimens removed had been examined and reported upon by a competent medical pathologist, but that *never* had the staff itself had a tissue audit and report. The people in that area, who constructed and equipped a beautiful hospital, deserve higher standards of care than they are receiving. One indirect solution to this problem would be an influx of young doctors of medicine into such troubled areas. Your Committee joins the State Society in urging every effort to encourage a trend of that sort.

The Committee and the legal counsel provided guidance and information to representatives of the Minnesota State Medical Society in resisting recurring efforts of the osteopaths to liberalize their Minnesota practice act without demonstrating adequate training and absence of cultism.

A recent Iowa attorney general's opinion that osteopaths may serve on insanity commissions was discussed. This, of course, represents another minor but significant chipping away of the prerogatives of the medical profession. On strict legal grounds, it appeared that this opinion could be challenged. Your Committee recommended to the Board of Trustees that the matter be pursued in an effort to have the opinion withdrawn or changed.

The Committee wishes to reemphasize to everyone that in relations between doctors of medicine and osteopaths, the welfare of the patient should be given first concern. It would be well for some of our members to review the 1957 supplemental report of this Committee, which was sent to all members. It concerns ethical relationships which are still flouted in some localities. It is possible to practice ethically without being radical, petty, or argumentative. Our basic conflicts with osteopaths are concerned with cultism and inadequate training. Personality differences, petty jealousies, and financial interests have no place in the discussion. The public deserves to know *what* we oppose in osteopathy, and *why* we oppose it. We are the *only* ones who can educate the public on this issue. If we choose to do that job and do it properly, the day will come when the "osteopathic problem" will be no more.

The chairman wishes to thank his alert and aggressive committee members for their work and support. The Committee is indebted to Mr. Robert Throckmorton, legal counsel, for the time and effort he has spent in giving advice and helping to clarify the issues.

JOHN RHODES, M.D., *Chairman*

COMMITTEE ON EMERGENCY MEDICAL SERVICE

According to the plan formulated in the previous year, each of the eight members of the ISMS Committee on Emergency Medical Service has assumed leadership for planning the dissemination of information in the civil defense district where he resides.

In each district at least one meeting has been held, and representatives of the professional societies of dentists, nurses, veterinarians, pharmacists and hospitals were invited to participate in it. In addition, when appropriate, county civil defense chairman, city civil defense directors, state civil defense officials, Red Cross representatives and others concerned with emergency medical service were included.

The purpose of these meetings was threefold: to provide orientation and information, to extend organization to the county level and to promote cooperative effort among the health professions and their societies. In the matter of providing information, these meetings have proved quite fruitful and have engendered an interest in emergency medical service not only among doctors of medicine but among members of allied groups.

In addition, demands were made upon and met by the Iowa State Medical Society for further information. The necessary data were furnished by distributing several hundred papers, pamphlets and letters on civil defense and disaster planning. Some of these materials were prepared by Committee members.

At district meetings, plans were made for organizations at the county level. In each county there will be a committee composed of representatives of each of the health professions mentioned above, and that committee will assume leadership in planning and organizing for emergency medical service, and will be available as an advisory body to the county civil defense chairman. In some districts these county committees have already been appointed, and in the rest the organization work is underway.

The formation of interprofessional committees at the state, district and county levels gave impetus to the designation of "Community Planning for Disaster" as the major project of the Iowa Interprofessional Association for 1957-1958, and has done much to promote the necessary cooperative endeavor among the health professions.

On December 11, 1957, an IIA-sponsored state-wide conference of all district committee members was held in Des Moines. It is evident that within this framework lies the opportunity for continuing the promotion of an emergency medical service organization.

In accordance with last year's recommendations, attention has been turned at the community level to the preparation of hospital disaster plans. Primary emphasis has been on planning for local disasters such as tornadoes, floods, explosions, etc., but it is hoped that as planning progresses, provision will be made to keep the plans flexible and expandable so that we may be prepared for the tremendous problems of civil defense that would result from atomic warfare. This matter has been emphasized in meetings at all levels, and much of the information distributed by the State Society has been concerned with this aspect. Under this stimulation, there has been a gratifying increase in interest in hospital disaster planning, particularly on the part of medical staffs.

One committee member, Dr. C. O. Adams, Mason City, with Mr. Gerald L. Buckles, the ISMS field secretary, attended the AMA Civil Defense Conference in Chicago on November 8-9, 1957.

It is recommended that the Committee continue its efforts as described above and that the Iowa State Medical Society continue to support interprofessional efforts in emergency medical service.

ROBERT C. HARDIN, M.D., *Chairman*

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

The Advisory Committee to the Woman's Auxiliary has seen much activity the past year. In all of the counties in which there are Auxiliary members, we find that the National Auxiliary's theme "Health Is a Joint Endeavor" is being realized through the advancement or completion of projects that the county medical society and its Auxiliary have undertaken together.

In those counties not yet organized, we find that Auxiliary members-at-large are also participating in joint activities. However, one or two informed individuals as members-at-large can seldom accomplish as much as an organization can do. Thus, each county society lacking an Auxiliary is urged to help doctors' wives becomes an organized group, and to evaluate the areas of service where the Auxiliary members' talents can best be utilized.

In all cooperative endeavors, the Auxiliary leaders welcome training and supervision. These, in most cases, must come from the leaders of the medical profession, who are familiar with medicine's needs and with the means by which these needs can best be met. Auxiliary members have something vital to offer to the profession through competent and enthusiastic effort. If doctors will sit down with Auxiliary members and discuss the problems facing medicine today, and help the women choose their goals, the medical profession and each individual community will benefit. It is imperative today that our own "medical family" should present a united front.

In schools over the state, the Auxiliary has continued the project of sponsoring "Milestones to Marriage," a series of nine letters for high school seniors. Several hundreds of these have been distributed, and excellent reports of their acceptance by the students have been coming in from high school instructors, as well as from the students themselves. The ISMS Committee on Mental Health recommended this project to the Woman's Auxiliary Mental Health Committee.

The Iowa Auxiliary's Careers Recruitment and Educational Loan Fund committees, working together, have continued with their established projects. The Auxiliary continues to sponsor Future Nurses' Clubs for high school girls indicating an interest in the nursing field.

The Educational Loan Fund has been expanded so that loans may be offered to girls preparing for health careers other than in nursing. The twenty-fourth loan for nurses' training was made from this Fund this year. At present, 12 girls are receiving loans; $7,050.50 is out on loan; 9 girls have repaid the total amounts of their loans; 3 have graduated this year and will start repayment immediately; and 5 girls who have filed applications to date will receive loans in the fall. The Educational Loan Fund is supported by an assessment of 50 cents per Auxiliary member, plus memorial contributions. In addition, during 1957 the Fund was again increased by $370.00, the proceeds of the benefit dance held on Monday evening during the Annual Meeting, plus a contribution of $50.00 received at that time. At the 1958 Annual Meeting, a dance is to be sponsored jointly by the Loan Fund and AMEF committees of the Auxiliary, and they will share equally in the money that is raised.

The Future Nurses' Club Conference was held on November 8 at Allen Memorial Hospital in Waterloo, with 163 girls and 21 sponsors in attendance. A November date is being selected for such meetings to coincide with the convention of the Iowa State Education Association. By that means, girls can attend without being absent from school.

The Careers Recruitment Committee continues its cooperation with the Iowa Nursing Careers Committee, an inter-organizational group interested in recruitment and training for both professional and practical nurse training programs.

The Auxiliary's Committee for Handicapped Craft Sales can report that during the past year seven such sales were held—six in department stores and one in space donated at a county fair. Auxiliary members display the articles made by handicapped workers, obtain publicity for the sale and act as salewomen. These sales were held in Burlington, Waterloo, Dubuque, Fort Dodge, Des Moines and Sioux City, under sponsorship of the respective county Auxiliaries, and at the Clay County Fair in Spencer under the auspices of the Clay County Auxiliary, with sales personnel from Auxiliaries throughout the Third District. All proceeds from the sale go to the individuals who made the articles, under the guidance of the Iowa Society for Crippled Children and Adults.

The Auxiliary's Legislative Committee has again taken an important part in the year's activity. The chairman was invited to attend the meetings of the ISMS Committee on Legislation as well as a regional meeting of the key legislative people in the state, so that she might assist in keeping doctors' wives informed on current and pending legislation. The Auxiliary's Legislative Committee has been most helpful in channeling information to members.

The Public Relations Committee continues presenting an award for Community Service each year to an Iowa woman other than a physician's wife or a paid health worker who has done outstanding voluntary health work in her community.

On recommendation of the Executive Council of the Iowa State Medical Society, the Auxiliary is sponsoring the American Association of Physicians and Surgeons Essay Contest in Iowa, several counties participating.

A roster of all physicians' wives in Iowa was compiled during the past year, by means of which new members can be recruited and information can be disseminated beyond the limits of Auxiliary membership. The History Committee has begun assembling materials of a historical nature regarding county Auxiliaries and is in the process of setting up a central file for Iowa Auxiliary history.

The Auxiliary again participated in the Senior Day Program at the SUI College of Medicine last spring, and has representatives on, and supports, the Public Health Council, State Safety Committee and many other state committees in health and educational fields. Representatives were in attendance at the United Nations Day program at the State House. More Auxiliaries each year are observing Doctor's Day, an occasion designed to honor members of the medical profession, both living and dead.

The AMEF Committee has urged the use of memorial and appreciation cards, and has sold many especially designed packets of note paper for the benefit of the Fund. Now that it is to share in the proceeds of the benefit dance during the Annual Meet-

ing, it should be able to make a notable increase in the Auxiliary's contribution to AMEF during the coming year.

The Auxiliary's Civil Defense Committee has also been active during the past year.

The BULLETIN and TODAY'S HEALTH Committees are promoting the sale of their respective publications, and hope to meet their increased quotas. The WOMAN'S AUXILIARY NEWS has enjoyed a change in style, and continues to be an excellent informational source as well as a means by which doctors' wives can keep up-to-date on happenings over the state.

Membership in our Auxiliary has reached 1,050. There are 40 organized chapters, those in Lee and Pocahontas Counties being the most recent additions. The members-at-large count, now 91, gives us excellent state coverage and a hope for more organized Auxiliaries in the near future.

WALTER D. ABBOTT, M.D., *Chairman*

COMMITTEE ON NURSING EDUCATION AND SERVICE

As the Committee on Nursing Education and Service interprets its assignment, its job is to counsel and advise regarding improvements in the training of nurses and in the services they are taught to render to patients. Previous committees have carried out this function as best they could.

Numerous suggestions have been made for bettering nurses education and service, and most of them are extremely important. Some have been offered by physicians, some by nurses, and some even by student nurses. In addition, many patients have expressed opinions on the subject, and they deserve to be heard no less than anyone else.

But not all doctors, nurses or patients have contributed ideas and expressed attitudes, and if the Committee is to be of maximum service to the healing arts and to the public, it must undertake several studies and solicit additional opinions.

In the first place, a thorough study must be made of the specific content of nursing education. This study certainly should include a penetrating examination of the subject matter contained in the various courses, as well as a review of the curricula that the various schools offer. Indeed, we may need to go so far as to examine instructors' lesson plans.

We are already at work on the first phase of our job. We have an accumulation of curricula and are endeavoring to get out a survey questionnaire asking the directors of the schools for the content of the various subjects that compose those courses of study. When the returns are in, some visits may be necessary to clear up some of our questions to which we haven't received complete answers. Ours is a difficult task, but we are attempting a really worthwhile survey of nurses' training in Iowa, and we intend it to be as thorough as we can make it.

When our investigations have begun to show significant results, we shall be ready to start reviewing the suggestions to which I referred at the start of this report. In addition, of course, we shall invite expressions from the nursing schools as to where doctors can be of help.

At that time, the Committee will be called together to inspect the data and decide upon the use that can be made of it.

In the meantime, we hope that any member of the Iowa State Medical Society who has an opinion or a suggestion will help us by making a note of it and sending it to us at the state office. This assistance is essential to us.

In our assigned area, we should like to enable our State Society to be of real service to the nurses, to the public and to the medical profession.

W. M. SPROUL, M.D., *Chairman*

HISTORICAL COMMITTEE

During the past year, four articles on medical history have appeared in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY: "The Medical Library Club," by Dr. Tom B. Throckmorton; "The Medical History of Sioux County," by Drs. H. G. Oggel and C. B. Murphy; "The Medical History of Kossuth County," by Dr. C. H. Cretzmeyer; and "The Langer Case," by Dr. G. E. Morrissey. We regret that Dr. Cretzmeyer died before his article appeared in print.

At present we have part of the manuscript on the Medical History of Clay County, together with several excellent photographs, but still lack the second part, which will include biographical data on the practitioners there. We also have a brief history of the Clinton County Medical Society awaiting publication.

Illnesses of the authors have delayed other promised manuscripts, but we are hopeful that the Committee will obtain these and other county histories during 1958.

Tentative plans are being formulated to publish each year a brief summary of the most important events in the history of the Iowa State Medical Society for the preceding 12 months.

JEANNETTE DEAN-THROCKMORTON, M.D., *Chairman*

COMMITTEE ON GROUP INSURANCE

This Committee has maintained close liaison with Holmes, Prouty, Murphy, and May, the Des Moines agency that is handling the ISMS group accident and health program. No unusual cases have been referred to the Committee. The agency has been cooperative in keeping the chairman of this Committee informed on the status of the program.

The administrators say that approximately 60 per cent of the eligible ISMS members are participating in the program. A number of new members of the Society have taken advantage of the group insurance plan during the past year.

The group insurance plan has continued satisfactory to the underwriting insurance companies, although the claims paid during 1957 increased approximately 20 per cent. Almost $200,000 in claims has been paid to Iowa doctors to date.

The Commercial Insurance Company, the underwriter of the basic coverage, has now provided a substantial reduction of the premium cost to the members of the Society under age 35. Effective on the next renewal date (June 1, 1958), a 25 per cent discount of the disability insurance premium will automatically become effective for all members under age 35. Members presently insured will receive renewal premium notices calling for payments at the new, reduced rates,

and members to age 35 not presently insured may apply for the group insurance at the reduced rates. This reduction in cost to younger members is provided without any reduction of coverage or increase of cost to other members of the Society.

The Committee on Group Insurance is also investigating other plans of group insurance available to the Society. These include:

1. Group life insurance
2. Office overhead expense insurance
3. Major hospital and nurse expense insurance

Additional group insurance plans which can be recommended by the Group Insurance Committee will be presented to the House of Delegates for consideration at the forthcoming Annual Meeting.

Any ISMS member desiring to express his views or to make suggestions on insurance programs for the Society is invited to get in touch with members of the Committee on Group Insurance.

The Group Insurance Committee has been asked by the Executive Council of the State Society to study the advisability of having the ISMS establish, through its office, a group plan under which all members of the ISMS could purchase Blue Cross-Blue Shield coverage with the advantage of group benefits and rates. The Committee has not had an opportunity to study this problem, but will do so as soon as possible and will report its findings to the Society.

G. G. YOUNG, M.D., *Chairman*

IOWA BAR LIAISON COMMITTEE

Up to the present time there has been no occasion for a meeting of the Iowa Bar Liaison Committee, but it is our understanding that the Bar Association has some new problems which may require a joint meeting. If such occurs prior to the Annual Meeting of the Iowa State Medical Society, a supplementary report will be made at that time.

DONALD C. CONZETT, M.D., *Chairman*

PUBLICATIONS COMMITTEE

During 1957, the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY continued presenting the papers that had been read at the Society's Annual Meeting, together with unsolicited manuscripts contributed by Iowa doctors, as room could be found for them. As regards both scientific manuscripts and advertisements, the JOURNAL has been provided a wealth of material, and it has been necessary to make the issues larger and larger in order to accommodate all of it. Thus, instead of 112 pages, which were about average as late as a year ago, approximately 128 pages now compose a normal-size issue.

The advertising revenues of the JOURNAL in 1957 were approximately 35 per cent greater than in 1956, and although printing costs rise in nearly direct proportion with increases in advertising volume, the JOURNAL is becoming almost a profitable operation.

At the start of 1958, we broadened the space between the two columns that compose a typical JOURNAL page, in the belief that such a change would add to our readers' eye-comfort. We should welcome suggestions for further improvements.

EVERETT M. GEORGE, M.D., *Editor*

The Speaker then called for supplemental reports. Supplemental reports were presented to the House of Delegates and referred to the proper reference committees for study.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES

(Referred to the Reference Committee on Reports of Officers for study and recommendation, except for the portion which recommended that annual dues be established at $85 for the year 1959, which was put to a vote and passed unanimously by the House of Delegates. At the closing session of the House of Delegates in 1957, a resolution had been introduced and referred to the Board of Trustees for study and report at the 1958 Annual Meeting recommending that Society dues be set at $75 beginning in 1959. In making its recommendation concerning dues, the Board of Trustees was acting as a reference committee of the 1957 House of Delegates. Thus, it was not necessary for the Speaker of the 1958 House to refer that recommendation to a reference committee.)

At the closing session of the House of Delegates last year, a resolution was introduced and referred to the Board of Trustees for study and report at the 1958 Annual Meeting, which recommends that future ISMS dues be set at $75, beginning in 1959. The Board of Trustees, after carefully studying the Society's financial status, has concluded that it cannot recommend adoption of this resolution. Its reasons are as follows:

1. The Society's bond reserve of $50,000 is $10,000 short of the $60,000 minimum reserve which the Board believes the Society must have in order to be prepared to meet any unexpected financial emergency. During the past year, we were able to add to the reserve only because of outside financial aid the previous year. If the Society's expenditures this year are consistent with the budget, there will be no opportunity to add to the reserves in 1958. However, you have our assurance that every effort will be made to increase the Society's reserves as rapidly as possible. For details on the Society's finances, please read the Report of the Treasurer appearing in the HANDBOOK.

2. After close scrutiny of the work of the Society, the Board of Trustees is convinced there are few, if any, activities that are not essential, and that at this time it would be to the detriment of the Society to curtail or discontinue any of them.

3. The Society is operating with minimum staff. Our regular staff is 13 people, two of whom are half-time with Blue Shield, and one who is assigned to Medicare and whose salary is reimbursed by the Department of Defense. I am sure it would be a revelation to you, as it has been to me, if each of you could have an opportunity to observe this small, well-knit staff of loyal, devoted people, working in your interest. The Board of Trustees respectfully invites each delegate to study all of the reports included in the HANDBOOK, but especially the Report of the Secretary. This report constitutes an excellent summary of all State Society activities during the past year.

My comments concerning the Board's reluctance to recommend curtailment of any of the Society's activities, speak only for the present. If, in the future, cutbacks seem advisable, they will be made. We have reduced our television productions to a minimum, as indicated in the HANDBOOK report of the Health Educa-

tion Committee. We no longer have a Department of Public Relations. This work has been assumed by the executive secretary, with the assistance of one other of the regular staff members. The HANDBOOK report of the Public Relations Committee indicates little or no reduction in public relations activities, even though this work has been assumed as added responsibility by those two individuals.

Most of the activities of the State Society during the past year are well-defined in the HANDBOOK reports, many of which will be supplemented at this meeting. It would be discourteous and inappropriate for the Board of Trustees to assume responsibility for outlining a detailed description of the various activities of the Society, since committee chairmen and other officers should share in this responsibility.

A major concern of the Board of Trustees is the establishment of a well-informed membership. We are confident that if the doctors of this state are conversant with the Society's activities, they will support it financially and will contribute their individual talents in implementing the many and varied worthwhile programs. The Board of Trustees calls upon each delegate to assume personal responsibility for conveying to his colleagues back home the information that has been imparted at this meeting. Delegates have an obligation to their fellow county society members, not only to participate in the formulation of State Society policy, but also to transmit to the members whom they represent, information on all phases of ISMS business affairs.

We will continue to assist the delegates in informing their constituents through the JOURNAL, periodical news bulletins, etc. The Board of Trustees realizes that if cohesiveness is to be accomplished within the membership of the State Society, an improved method of informing the physicians back home must be forthcoming.

For several years, the State Society has sponsored an annual conference for county medical society officers. Even though the programs have been outstanding and the promotion of the conference at least adequate, attendance has been most disappointing. Therefore, we are hopeful that some type of informational plan can be developed in cooperation with Blue Shield to bring the State Society closer to the individual members at the grass roots.

If the State Medical Society is to prograss and remain an effective instrument of the doctors in dealing with the serious problems that face organized medicine, good cooperation from the membership is not sufficient—maximum support is essential.

During the past 10 to 15 years, the Iowa State Medical Society has been confronted with one crisis after another, and has measured up to each as it has occurred. In the late 1940's there was the threat of compulsory health insurance, a serious and long-lasting legislative contest; next came the encounter with the American College of Surgeons over the Iowa elaboration of medical ethics in reference to the division of fees; then there were the many and varying problems with the osteopaths, the hospital-doctor controversy, and the chiropractors' attempts to expand their practice privileges.

Even though the Society has been well occupied in defending itself from the onslaughts just referred to, positive programs of the State Society have shown a decided increase. I might mention a few: The Society's stepped-up programs in mental health and rural health, various programs of medical service, medical defense, automotive safety, relations with the allied professions, etc. As far back as I can remember, the Society has looked forward to a period of quiescence which would provide opportunity to devote full time to the development and implementation of positive programs. Following the annual meeting last spring, with the hospital-doctor controversy supposedly having drawn to a close, we thought this opportunity had arrived. Again we were denied. The hospital-doctor controversy was transferred to Blue Cross-Blue Shield, and the Society, working with Blue Shield, spent practically an entire year accomplishing the transfer of medical services from Blue Cross to Blue Shield.

The Society has an extremely serious problem facing it, with the Forand Bill before Congress. Through careful planning of the Legislative Committee, and the lead that has been taken by the American Medical Association and other groups, we hope that this legislation won't constitute too great a burden, but only time will tell.

As a physician I make my living practicing medicine, but at the same time I have other business interests which cause me to compare the operation of the Society to other business enterprises. A point that seems extremely significant in considering Society finances and dues is that in private industry it is not uncommon for firms to allocate as much as seven per cent of income to public relations and advertising. One Iowa firm with which I am acquainted spent $140,000 last year for public relations alone, an amount which approximates the Society's total annual income from dues. Physicians' income in Iowa—based on the income of 2,400 members, each earning $15,000 a year net—represents a total net income of $36,000,000. The Society's income from dues is approximately $150,000 a year, or 4/10 of one per cent of the total earnings of Iowa physicians.

One other thought in comparing ISMS dues to other items of expense comes to mind when one considers what is paid for automobile insurance. The annual insurance premium on one automobile is more than a doctor pays in State Society dues. I hope these illustrations will provoke thought about the comparative dollar value of a physician's investment in his ISMS.

Finally, the doctor's financial obligation to the Iowa State Medical Society's Educational Loan Fund will be fulfilled in 1959. Therefore, annual dues of the ISMS will automatically be reduced $10 in 1960. In consideration of all facts available, and in anticipation of the future financial obligations of the Society, it is the best judgment, and accordingly the recommendation, of the Board of Trustees that the Iowa State Medical Society's annual dues, including $10 for the ISMS Educational Loan Fund, be established at $85 for the year 1959, and that the resolution recommending the establishment of ISMS dues of $75 in 1959, be not approved.

G. H. SCANLON, M.D., *Chairman*

Supplemental Reports of Standing Committees

COMMITTEE ON LEGISLATION

(Referred to the Reference Committee on Legislation and Public Relations. For final action by the House of Delegates, see the reports of the reference committees.)

The Committee on Legislation has been engaged in a number of activities since the preparation of the report contained in the HANDBOOK. These are presented to the House of Delegates in this supplemental report. The report is divided into two sections. Section I deals with legislative activity at the state level, and Section II deals with legislative activity at the national level.

SECTION I—STATE LEGISLATIVE ACTIVITY

(a) *Physicians in the Iowa Legislature.* There were no physicians in the Iowa Legislature during the last session. A physician is very effective in explaining health legislation, and his views are usually held in high regard by members of the Legislature. An active effort was made by the Committee on Legislation to interest physicians in becoming candidates for both the House of Representatives and the Senate this year. Our efforts were unsuccessful, but we have tentative commitments from at least two physicians to be candidates in 1960. Active support of all members of the Society in stimulating some of their fellow physicians to be candidates for the Legislature is requested.

(b) *Chiropractic Problem.* There is a continuing effort on the part of chiropractors to expand their activities and their scope of practice. Recently an effort was made by a chiropractic nursing home to obtain a license as a hospital for the purpose of taking care of patients with psychiatric illness. Additional efforts like this one and further attempts to expand their present scope of practice are anticipated during the coming session of the Legislature.

(c) *Cancer as a Reportable Disease.* A request has been received from the Iowa Division of the American Cancer Society for the Committee on Legislation to consider the desirability of making cancer a reportable disease by legislative action. The Legislative Committee has reviewed this request and is concerned lest implementation of it result in (1) stimulation of the concept that people engaged in public health activities have a primary responsibility for the entire field of health care, and (2) stimulation of other organizations, such as the Heart Association, the Cerebral Palsy Association, etc., to request that the diseases in which they are interested should also be made reportable diseases. The Committee on Legislation requests guidance from the House of Delegates on this matter.

SECTION II—NATIONAL LEGISLATIVE ACTIVITY

(a) *Federal Aid to Medical Schools.* Hearings will be held in the near future by the Health Subcommittee of the House Interstate and Foreign Commerce Committee on bills which would provide for one-time construction grants for teaching facilities in medical schools, and grants for the construction of research facilities. Several bills deal with these issues. These bills include H.R. 6874, H.R. 6875 and H.R. 7841. Two of the bills would tie in the teaching-facilities grants with the program of grants for construction of research facilities.

(b) *Hill-Burton Program.* The present Hill-Burton program expires in 1959. A number of bills have been introduced which would extend the program some two to five years. Some of the bills would authorize long-term, low-interest loans for those hospitals which would prefer loans to grants. These bills include H.R. 1979, H.R. 6329, H.R. 6622, H.R. 7575, and H.R. 7741.

(c) *Jenkins-Keogh Bills.* These bills (H.R. 9 and 10) are still pending before the House Ways and Means Committee. Testimony was presented on these bills shortly after Congress convened in January, as part of the hearings on general tax bills. Other legislation has been introduced which would allow tax deferment of up to $1,000 a year for the self-employed. This legislation is a part of an omnibus small-business tax relief program. The bills are H.R. 10499 and S. 3194.

(d) *Medicare.* The House Appropriations Committee has held hearings on the Medicare program. Some of the members of the Committee were critical of the program. This criticism was based primarily on cost. Dissatisfaction with the cost could result in restricting the care of dependents of servicemen to military hospitals. This would result in restriction of free choice of physician and would require more physicians in military service to care for dependents.

(e) *National Health Survey.* The first report of the National Health Survey being conducted by the U. S. Public Health Service has just been released. This report is based upon door-to-door interviews with some 28,000 persons throughout the country. The report indicates that each person in the United States makes an average of about 4.8 visits to a physician annually. Two out of three visits are in the doctor's office, and eight per cent are in the patient's home. Women over 65 consult the doctor most frequently, the figures showing an average of 7.6 visits each year.

(f) *Conference on Aging.* A White House Conference on Aging is proposed in several bills before the House of Representatives. Funds would be provided for state conferences on aging, which would be followed by the White House Conference in the spring of 1960.

(g) *Meeting in Washington with Iowa Senators and Congressmen.* In February, representatives of the Iowa State Medical Society met with Iowa Congressmen and Senators to discuss health legislation. This meeting was well attended and was regarded as successful by all present. Our views on pending health legislation were asked for and received with evident interest.

(h) *Amendments to the Social Security Act.* A number of bills which would amend the Social Security Act have been introduced. These are probably the most important of all pending bills, from the physician's viewpoint. They include the Forand Bill and several others of similar intent. During the proceedings of this House, there will be a complete off-the-record discussion of the Forand Bill and of the work that is being done by organized medicine and like-minded groups in an effort to defeat it.

F. C. COLEMAN, M.D., *Chairman*

MEDICO-LEGAL COMMITTEE

(This report was approved by the House of Delegates without referral to a reference committee. In this instance, the Medico-Legal Committee served as a

reference committee of the House of Delegates from the preceding year to study matters of business that had been referred to it.)

The House of Delegates a year ago received a resolution from the Cass County Medical Society recommending that the Iowa State Medical Society create a Medical Defense Fund by assessing each of its members $1.00 per year, these funds to accumulate over the years and to be used for the purpose of providing legal assistance to members involved in malpractice suits, and further, that the president appoint a Medical Defense Committee of five members, representing the approximate geographical sections of the state. The House of Delegates approved the following recommendation of the Board of Trustees in lieu of the Cass County Medical Society's resolution:

"That the [Cass County Medical Society] resolution be referred to the existing Medico-Legal Committee for study, with advice and counsel of the ISMS attorney. The Board of Trustees calls attention to the fact that Chapter V, Section 10, of the By-Laws makes it possible for the Society to 'assist in any lawful or proper manner in the preparation of the defense against claims and suits for civil malpractice presented or brought against any member of this Society in good standing, provided such member shall request the aid of the committee. For this purpose it may incur such expense and cause such disbursements to be made as the committee and the Board of Trustees may approve.' For the present, the Board of Trustees suggests that the president of the State Society consider enlarging the Medico-Legal Committee from three to five members."

It is the consensus of the Medico-Legal Committee that the section of the Articles of Incorporation and By-Laws previously referred to in the recommendation of the Board of Trustees is adequate and makes available the services requested in the Cass County Medical Society resolution. It believes there is ample opportunity for a member in good standing to turn to his Society for advice and legal aid, especially when he is involved in an unusual case which, if not properly adjudicated, might alter a principle affecting the whole of the Medical Society.

The Committee therefore recommends that the Cass County resolution not be adopted. The Committee agrees with the recommendation contained in the resolution that there be at least five members on a Medical Defense Committee and that the personnel of this committee be selected in light of geographical locations.

It is the further opinion of the Committee that it should become more active in its review of malpractice cases that have occurred in other states, as well as in Iowa.

If agreeable to the House of Delegates, the Medico-Legal Committee will begin this year to review the material on file in the ISMS office concerning malpractice cases and will arrange to add to the Society's files by researching cases that come to the Committee's attention.

Finally, the Committee suggests that each physician take stock of the malpractice insurance which he now possesses, to be certain he is adequately protected.

V. C. ROBINSON, M.D., *Chairman*

COMMITTEE ON ARTICLES OF INCORPORATION AND BY-LAWS

(Referred to the Reference Committee on Articles of Incorporation and By-Laws for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The amendments that are proposed did not originate with this Committee but were considered and approved by the Committee at a meeting February 21, 1958.

The Judicial Council recommended to the Committee that Article III, Section 1 be amended to make it clear that to be a member of the Iowa State Medical Society a physician must possess a valid Iowa license to practice medicine and surgery. The Committee accepted this recommendation after it was explained that the intent of the Judicial Council in recommending this amendment was to require all members to meet Iowa licensure requirements and was not intended in any way as a discriminatory action.

A second item referred to the Committee by the Judicial Council requested the establishment of a special membership category for foreign physicians who are in training in Iowa mental health institutions. The Committee did not act on this recommendation when it learned that Section 148.5 of the Iowa Code had been amended by the 57th General Assembly of the Iowa Legislature to provide that a resident physician's license may be issued to graduates of foreign medical schools. There now exists in the Articles of Incorporation and By-Laws of the Iowa State Medical Society a provision for resident physician membership without the necessity of any further amendments to the Iowa State Medical Society Articles of Incorporation and By-Laws.

The Committee approved a resolution presented at the final session of the House of Delegates last year, and referred to this Committee for study and report. It was sponsored by Dr. Oscar Alden, delegate from the Montgomery County Medical Society. The resolution recommended that the Society create the status of honorary membership in the Iowa State Medical Society.

A recommendation from the Secretary of the Society on behalf of the Board of Trustees was approved which suggested that the title of the executive secretary be changed to executive director. The Committee agreed with the sentiment expressed, that this new title would more accurately describe the duties and responsibilities of the position.

Therefore, based on recommendations previously outlined, the Committee on Articles of Incorporation and By-Laws respectfully recommends the following amendments to the Articles of Incorporation and By-Laws.

ARTICLES OF INCORPORATION

Amend the Amended and Substituted Articles of Incorporation of Iowa State Medical Society as adopted on April 27, 1955, and further amended at the annual meetings of the Society in 1956 and 1957 as follows:

Amend Article III, Section 1 to read as follows: "Component societies shall consist of those county or multiple county societies which now or hereafter may from time to time hold charters from this Society, their membership consisting of physicians holding a degree of Doctor of Medicine or Bachelor of Medicine *and possessing a valid Iowa license to practice medicine and surgery* or *to practice as a resident physician.*"

Amend Article IV, Section 3 so that the last sentence thereof shall read as follows: "The Board of Trustees shall employ a general administrative officer to be known as the Executive *Director* of the Society, who

need not be a physician nor a member of the Society."

Amend Article IV, Section 14 so that the last sentence of the first paragraph shall read as follows: "The Board of Trustees may employ an Executive *Director* and assistants for the Society, none of whom need be a physician or member of this Society, and shall fix the salaries and other compensations of the Executive *Director* and all other persons employed by or for the Society."

BY-LAWS

Amend all of Chapter I of the present By-Laws of the Iowa State Medical Society so that said Chapter I will read as follows:

Chapter I

MEMBERSHIP

Section 1. Membership in the Iowa State Medical Society shall consist of Active, Life and Associate members as defined by Article III of the Articles of Incorporation and also of Resident Physician members *and Honorary members.** The official roster of members shall be maintained at all times in the office of the Secretary. It shall be composed of the names of those physicians *or Honorary members* certified to the Executive Office of this Society as provided for by Chapter VI of these By-Laws, and duly approved by the Judicial Council. Registration of *the name of a physician or Honorary member* upon the official roster shall be *prima facie* evidence of his membership and his right to the privileges inherent in that membership.

Section 2. All members of the Iowa State Medical Society shall be privileged to attend all sessions of any annual or special meeting except as set forth in Chapter III, Section 2. They may participate in all proceedings except as elsewhere prohibited in the By-Laws. Any active or life member shall be eligible to any office within the gift of the Society, providing such member is a citizen of the United States and has been a member of this Society in good standing for five years.

Section 3. *Except for Honorary members,* no person who is under sentence of suspension or expulsion from any component society of this Society, or whose name has been dropped from the component's roll of members for any reason, or who is delinquent in payment of dues to this Society, shall be considered to be in good standing as a member of this Society. No person other than a member of this Society in good standing or an officially registered guest *or an Honorary member* shall be permitted to take part in any of its proceedings.

Section 4. Each member in attendance at any annual or special meeting shall be registered, indicating *either* the component society of which he is a member *or that he is an Honorary member.* No member shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

Section 5. For the purpose of medical defense, a member shall be regarded as in good standing only when his dues have been accepted in due course. No member under suspension or expulsion shall be eligible to the benefits of the medico-legal fund for any alleged wrongful act committed while under suspension or expulsion. Should a member in good standing move to another state, such member shall not be entitled to medico-legal defense for any professional act arising after his removal from this state.

Section 6. A member of a component society who has been convicted of a felony (a plea or verdict of guilty, or a conviction following a plea of *nolo contendere,* is deemed to be a conviction within the meaning of this section), or whose license to practice medicine in this state has been revoked or suspended, shall be dropped from membership in this Society automatically as of the date of conviction, revocation, or suspension. He shall be so notified by this Society and of his rights of appeal. A physician so dropped from membership may not re-apply for membership in this Society until one year has elapsed unless the period of time shall have been shortened by action of the Judicial Council upon appeal by the member.

Section 7.* Resident physician membership in this Society shall consist of those physicians licensed in Iowa to practice medicine and surgery as Resident Physicians, who hold a degree of Doctor of Medicine or Bachelor of Medicine, who are members in good standing of the component medical societies, who have been so certified to the headquarters of this Society and who have been approved by the Judicial Council. They shall not have the right to vote or to hold office.

Section 8. *Any person, either a member of the medical profession or a layman, may be elected to Honorary membership in this Society in consideration of his outstanding contribution to the advancement of human welfare. In order for a person to be elected to Honorary membership, his name shall first be presented to the Judicial Council by any member of the Society. If the nomination is approved by the Judicial Council, it shall be submitted to the House of Delegates and, if approved by two-thirds of the members present, the person so nominated shall thereupon be duly elected to Honorary membership. Honorary members shall be accorded all the privileges of active members but shall be exempt from the payment of dues and they shall not have the right to vote or hold office.*

(NOTE: Italicization is added solely to aid members in understanding changes that are proposed. It will not be shown if amendments are adopted. See the report of the Reference Committee.)

P. F. CHESNUT, M.D., *Chairman*

COMMITTEE ON MEDICAL SERVICE

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

This report is necessary in order that the members of the House of Delegates may be informed as to the results of the meeting of ISMS representatives who were in Washington, D. C., on April 17 and 18 to negotiate a new Medicare contract. The team of "messengers"—I use the term advisedly and shall explain it later—consisted of Attorney Robert B. Throckmorton, Mr. Wilbur R. Quinn, Dr. William C. Eller and me.

This report could not be properly presented or completed without a factual evaluation of the men with whom we were to negotiate this contract. Gen. Robin-

* Two deleted sentences transferred from Section 1 to Section 7.

son and Col. Lowery are both medical men, M.D.'s, and they know and understand the practice of medicine. Col. Lowery has been chief surgeon in four of our largest medical facilities. He has had residency training programs in some of them, and has many of his residents now in practice or in teaching positions. He has had 31 years of military experience. Gen. Robinson is a man of commanding personality and wisdom. I am sure that he has no intention of using "under the counter" policies. He definitely stated on several occasions that he wants this program to remain in the hands of doctors in the individual states, and not to impose an over-all set fee on a national basis.

With this as the background, I want you to realize how your "messengers" felt as the meeting progressed. The contractual and administrative problems were first discussed, and because of our freedom to negotiate these matters, it seemed that our meeting would terminate in one day. With a little discussion and compromising here and there, a contractual and administrative agreement was easily consummated.

But thereafter, we had to act as no more than messengers, and what was to have been a negotiation turned out to be just a discussion of fees. We had to demote ourselves when we learned that the chairman of the Fee Committee had assured various specialty groups that we would present the fees, but would take no responsibility for changing any of them without the sanction of the Executive Council. We had a schedule at $5 per unit, but after going to Washington, we had no authority to negotiate. Now, gentlemen, if I had been Gen. Robinson or Col. Lowery, I would have closed the book and quit trying to work with a group of men who had to sit back with folded hands, saying "We can't negotiate. Take it or leave it." We were not quite that crude, but it was certainly plain enough that this had to be our attitude. We had none of the latitude in regard to fees that we had exercised in solving differences earlier in the discussion.

The government team accepted our medical, psychiatric, pediatric, x-ray, pathology and obstetric proposals at $5 per unit. Our surgery and anesthesiology fees they would not accept.

The Army representatives were willing to give us the latitude we desired in the distribution of surgical fees. They would like to be told our administrative formula when and if we agree on one.

The Iowa program represents only one per cent of the total of Medicare costs, and thus we cannot reasonably expect to receive special consideration. We receive on an average between $20,000 and $22.000 per month for services rendered to Medicare beneficiaries, and to date we Iowa physicians have been paid $300,000 under this program.

Gen. Robinson said in as pleasant a manner as possible that the military dependents will be cared for, even if doctors have to be drafted to make sure that they are. Those were his instructions from Congress. Certainly, we shall perform no service either for our country or for ourselves by attempting to be penny-wise. Perhaps we should adopt the attitude of the Indiana farmer who told his wife, on his return from the grain market: "Well, I didn't get as much as I expected; but then I hardly expected that I would."

This report is submitted for information purposes, and not for any action by the House.

C. H. STARK, M.D., *Chairman*

SUBCOMMITTEE ON PREPAYMENT MEDICAL CARE

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Subsequent to the writing of our Subcommittee report, which appears on pages 41 and 42 of the HANDBOOK, we have held two meetings, one by ourselves and one in conjunction with a comparable group representing the commercial insurance industry.

At the first of those meetings, we discussed the formation of fee and/or utilization committees at the county or district level. Appointment would be controlled through the ISMS Executive Council, with the councilor placing the responsibility upon each of his deputy councilors to appoint the committee at the county level.

We also discussed the possibility of using the Subcommittee on Prepayment Medical Care as an insurance grievance committee.

The material on the Michigan survey was considered, and the merits of conducting some similar study in Iowa, possibly encompassing more then Blue Shield, were discussed at our meeting with the representatives of the commercial carriers. Mr. Kenneth Barrows, speaking for the commercial insurance industry, indicated that the firms he represents might be interested in such a survey, but preferred to study the nationwide survey now being conducted by the Health Insurance Foundation before taking any definitive action.

It was then recommended that the Subcommittee await the results of changes now being made in consequence of the Michigan Medical Society's survey before recommending to the ISMS that a survey be conducted in Iowa. It was further decided that after the Mahaska County information has been published, our Subcommittee shall meet and draw up a report for publication in the ISMS JOURNAL.

The creation of a standard plan for policies issued by commercial insurance companies was studied. Mr. Barrows said that the certification of certain policies has never been too successful. Nevertheless, it was thought that the medical profession could provide guidance to the insurance companies on subjects relating to fees and basic principles to be embodied in the various policies.

At our joint evening meeting with the commercial committee, Mr. Barrows made the following comments, which we feel should be a part of this supplemental report:

"It has become increasingly clear that if voluntary health insurance is to succeed, the insurance industry and the medical profession must work together. The necessity arises from the peculiar nature of our relationship. The insurance industry collects the money. The doctor spends it.

"The American medical bill now runs from 12 to 14 billion dollars a year. Voluntary health insurance, commercial carriers, Blue Cross-Blue Shield and independent plans pay about four billion, or one-third. We think we should pay two-thirds.

"We are concerned about our ability to do the job. Our concern is with costs. To pay two-thirds of the bill, we must broaden the coverage we sell. In addition, we must keep pace with inflation and the ever-continuing advances in medicine. We are fearful of pricing ourselves out of the market.

"Only the government can do the job more cheaply. They can do it more cheaply only by paying less for medical

ance company, one which will pay the physicians of Iowa 8 million dollars this year—$4,000 to every doctor in the state. It is subject to all the laws, rules, and restraints that govern any insurance company. It is not operated for anybody's profit. And it is not a lodge or fraternal order. Whim, fancy, and the normal desire to please a colleague have no place in its administration.

If you are sick and tired of the "bulwark," I'm sick and tired of being told that certain groups of doctors will withdraw from Blue Shield unless certain drastic changes are made—at once. If we worked the Golden Rule into a Blue Shield contract, it would doubtless inspire some adverse comment.

I do not regard Blue Shield as a barricade against those hare-brained social workers and congenital do-gooders—although it may serve such a function.

I regard Blue Shield as a growing expression and manifestation by the doctors of Iowa that they intend to live up to their responsibilities as physicians, citizens, and friends. This honest desire to help the troubled mind and body is the bulwark you have been looking for. The bulwark is your own integrity, your sense of compassion, your understanding, and your example. It is called "public opinion." Blue Shield is not the bulwark; Blue Shield is the outward expression of this bulwark. It is the only joint effort of Iowa's physicians which is tangible to the people. If Blue Shield should fail, it would not be a lowering of a barricade. It would signify the absence of unity and responsibility which are the true fortress.

I was recently reminded by a Blue Shield Board member that nothing should be done to destroy the priceless ingredients in Blue Shield—the good will and confidence of its doctors. I am not certain we actually have this good will and confidence in an amount necessary to do the job. If we don't, the fault and the cure lie in two areas:

1. Every doctor is an architect at heart. We attend planning and committee meetings with interest, and detail the construction of anything from a two-holer to a new State Capitol—and back our beliefs against all opposition. But when fund raising begins, and actual construction is in full swing—well, we usually leave that up to someone else. Your Blue Shield Plan suffers from having fallen into that pattern. The members of your Board are physicians; they are colleagues and friends. As evidence of your trust in them, you elected them to the positions in which they serve. There is nothing about the Blue Shield Board which saps the intellect of a man or twists his moral fiber. Cannot the dignity and courtesy of our professional relationship include Blue Shield?

2. Every doctor owns a circular file. Any message more than two paragraphs long, all third-class mail, and all Blue Shield material is routinely filed therein. This points up our second difficulty—lack of communication. In the entire history of Blue Shield, the attendance at annual meetings or councilor district meetings has never exceeded 10 per cent of physicians. Surely the simple dictates of economics should induce us to do better than that. If the physicians of Iowa are to make decisions which contain dangerous seeds, then they must become informed. Ignorance is not permanently bliss. It is high time that the Iowa State Medical Society made each physician aware of his responsibilities to Blue Shield. Some kind of local forum must be held; our shirt tail is out and showing. If it's not clean, Uncle Sam won't need to meddle with it; the people of Iowa, our friends, will wash it out for us—and look out for the wringer!

Beginning next month, a new publication from Blue Shield will reach every participating physician in Iowa. This will have its origin in the Department of Public Relations, and it will tell us, month by month, just what the people think about us and our product. If we need a deodorant, let's get busy.

I should like to propose the following measure for the approval of the House:

1. The present Blue Shield contracts provide no satisfactory coverage for the in-betweens—those earning from $3,600 to $7,000 per family. Blue Shield requests the approval of a $5,000 income limit policy.

2. Blue Shield requests the approval of policies deleting those services not desired by the patient.

3. Blue Shield requests the Iowa State Medical Society to undertake an informational program which will better fit the physician as a leading citizen in today's ideology. Blue Shield needs the confidence and good will of every physician; we believe these priceless ingredients will be born of knowledge and grow with understanding.

Mr. Speaker, I move the adoption of this report.

TOM D. THROCKMORTON, M.D., *Chairman*
Blue Shield Executive Committee

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

On Thursday, March 27, 1958, the Committee on Medical Education and Hospitals initiated its efforts to reactivate district postgraduate medical education meetings. The Webster County Medical Society cooperated with the Iowa State Medical Society in sponsoring a Medical Conference at the Warden Hotel in Fort Dodge, Iowa.

The program began at 1:30 p.m. with a talk by Doctor Thomas A. Burcham, Jr., of Des Moines, on "Radioisotopes in the Smaller Hospitals." At 2:30 p.m. Doctor Charles H. Gutenkauf, also of Des Moines, spoke on "Use and Abuses of Tranquilizing Drugs" and at 3:30 p.m., Doctor Tague C. Chisholm, of Minneapolis, Minnesota, presented a paper on "Surgery in Childhood." Interest in these subjects was evidenced by the numerous questions that were asked during the discussion period.

A social hour and buffet dinner followed the afternoon session. Doctor John H. Randall, of Iowa City, spoke on "Gynecologic Cancer" at 7:30 p.m., and the program ended with a talk by Doctor Harold Morgan, of Mason City, on the Iowa Cytology Program.

Fifty-two doctors were present at this conference, which was a favorable turnout considering the fact that the American Academy of General Practice Meeting was being held in Dallas, Texas, and the Regional Meeting of the American College of Surgeons was being held in Des Moines on the same date. A registration fee of $5.00 was charged to cover all expenses of the meeting.

service. This, we know, will downgrade the quality of medical service.

"Heretofore, our formal efforts to work with the medical profession have been at the national level. Last summer, there was a meeting 'at the summit.' A number of insurance company presidents met with the officers and trustees of the American Medical Association. Both groups endorsed the principle of working together. Dr. George Lull, secretary of the AMA, reported the meeting to state and county societies in his August 'Secretary's Letter,' urging similar meetings at the local level.

"To implement the idea, the Health Insurance Council embarked upon a program of state committees. The Health Insurance Council is a federation of trade associations whose membership, consisting of life, accident, and health and casualty companies, accounts for 90 per cent of the accident and health business written in this country.

"The Iowa committee is among the first to be formed. We are new as a committee and new in our undertaking. Our first objective is to establish an effective means of communication between the insurance industry and the doctors in the state. We realize that this must be a two-way proposition. We expect to listen as well as to talk.

"Speaking generally, we would like some help from the doctors in shaping public opinion. We can sell only what the public is willing to buy. Whether he likes it or not, the doctor is an opinion leader in health-insurance matters. The more he knows about the mechanics of health insurance, the more he can help us guide public opinion in the right direction.

"We do not want to fix the doctor's fees, but we would like some expression from the medical profession as to what they consider appropriate fees for the community. We want to sell adequate coverage, but as matters now stand we have nothing to offer the purchaser as a guide except our own opinion. We think we could do a much better job if the doctors gave us some reasonable standards to go by.

"We want to preserve the patient's freedom of choice in selecting his physician. We want to preserve the same freedom in selecting his financing agency and plan of coverage. We want to continue inter-carrier competition and to encourage experimentation, because these forces are the life blood of progress.

"We want to preserve the traditional American physician and patient relationship. In this connection, however, we must reckon with the very hard fact that insurance does influence the practice of medicine. It bears importantly on the who, where, when and how of medical care. Because this is true, we think the doctor is entitled not only to know what insurers are doing but also to have a voice in the development of voluntary health insurance.

"The purpose of tonight's meeting is to exchange ideas on what the insurance industry would like from the doctors and what the doctors would like from the insurance industry. This will acquaint us with one another's problems and provide a basis for specific undertakings in future get-togethers."

Next year, our Subcommittee expects to meet from time to time with representatives of the commercial insurance industry to discuss mutual problems. Further study will also be made toward conducting a survey of the voluntary health insurance industry and the health needs of the people.

We recommend acceptance of this supplemental report.

WILLIAM C. ELLER, M.D., *Chairman*

These remarks by Dr. Eller were supplemented by the following, which were presented by Dr. Tom D. Throckmorton, chairman, Executive Committee, Iowa Medical Service (Blue Shield). (This report was referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

I come before you for the third time in as many years, to detail the recent past of Blue Shield, and to gaze with you into the cloudy crystal ball of the future.

The past is done; it cannot and will not be altered. These are the highlights:

1. Radiology and pathology, as medical services, were transferred from both the Iowa Blue Cross Plans and are now services rendered through Blue Shield. This was accomplished with no more difficulty than one would expect. Whatever you expected, we had!

2. Two new Blue Shield contracts were made available, the Plan B "300" and the "Blue Chip" Plan. These have actually been available for about three months, and no data on them are available. Initial public reaction toward Plan B "300" has not been that of utter fascination. The "Blue Chip" Plan has their interest, but they wonder if they can afford the power windows *and* the two four-barrel carburetors.

3. As you know, many services are performed for Blue Shield by Blue Cross. Your Blue Shield Board members have wondered whether or not these services were being rendered as satisfactorily and as economically as possible. We also wondered if our own household was in order. Therefore, Blue Shield, together with Des Moines Blue Cross, have retained the services of O'Toole and Associates, insurance counsellors, to review our entire operation. This has been done. The examination began in October, 1957, and was completed about two weeks ago. The final report has not been made, but it is obvious that the implementation of many of the firm's suggestions will make for a more effective and economical operation.

4. Blue Shield lost money again last year—actually in the amount of $163,678.15. This loss was the direct result of an increased utilization which made it impossible to live within our premium structure.

5. Premiums were increased December 1, 1957, for the first time since 1953 and for the second time since 1945. Within nine months, the Blue Shield operation should become stable.

6. Although our premium structure has been made whole again, we have other troubles! During the first three months of this year, Blue Shield had a net loss of 6,621 contracts. This loss is almost solely the result of price. To be sure, our new contracts are probably the best in the country—but everyone can't afford "the best." To paraphrase President Eisenhower: "People are becoming disenchanted with the prospect of a package which rams down their throats items they have not asked for, do not want, and cannot afford." You will remember how, when the starving populace cried for bread, Marie Antoinette settled it all by suggesting: "Let them eat cake." We doctors are perilously close to this attitude. The public earns the dollars and theirs is the right to spend the dollars. And our duty as men of good will and true physicians is to make certain, in our hearts, that John Q. Public gets value received. It is no argument that John Q. spends inordinate amounts on whisky, tobacco, slow horses and fast women. They are his dollars! Blue Shield cannot in good conscience con a $4,500 a year family man into a "Blue Chip" policy. It is up to us to provide services he needs and wants—not an array of services we *say* he needs and wants.

This concludes the past. What does the future hold? Now this is the moment when you all know I'm going to suggest that Blue Shield must be nurtured as the sole bulwark between the hapless physician and the onrushing tides of socialism. May I have a show of hands of those who are sick and tired of this "excuse"?

Regardless of the circumstances which attended the birth of this plan, and without asking whether it is an unnatural bastard or a saint clothed in bi-monthly checks, Blue Shield is here! It cannot be ignored!

Blue Shield is an insurance company which collects money from people to pay doctors to furnish certain health services to the people. I repeat, it is an insur-

The comments which we received concerning this medical program were all very favorable, and we hope to continue this activity in other areas throughout the state. In the future, the Committee plans to arrange with the IAGP for the granting of credits to those of its members who attend, and also to schedule activities for the wives who accompany their husbands to the meetings.

L. F. HILL, M.D., *Chairman*

COMMITTEE ON PUBLIC HEALTH

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

As indicated in the report of this Committee which appears in the HANDBOOK, we have experienced a busy year—particularly in the investigation and study of the public health plans of other states. Since the writing of the report, the Committee has further considered and studied the Pennsylvania plan and familiarized itself with its details and method of implementation.

The two most prominent ways in which the plan under which the State of Pennsylvania is today conducting its program on public health differs from the old concept of public health are the decentralization of the Department of Health services into county or district organizations and the establishment of an educational and scientific trust by the Medical Society of the State of Pennsylvania. The Trust was set up by the State Medical Society as an outgrowth of its sincere desire for organized medicine to become more active in the field of public health and to meet the need for additional programs in this field to assist its members and county medical societies in the areas of progressive medical education and science.

After making its thorough study of Pennsylvania's public health plan, our Committee concludes that it is the sort of arrangement which most nearly meets the need in providing a means—(1) To assist in the establishment of sound public health programs at the "grassroots," (2) For local physicians to be enlightened and organized to play a more active role in the development of sound community programs of health and medical education, (3) For effectively presenting the needs, problems, and methods of local health services to physicians, and (4) For more constructive participation of physicians and their county medical societies in the planning and development of adequate public health programs for their communities. The Committee further feels that it is a plan which best enables the practicing physician to assist the operation of, and benefit from, a well organized public health program.

In view of the above findings and conclusions, and following conferences with the ISMS Board of Trustees, the ISMS Executive Council, the ISMS Committee on Legislation, the Iowa Commissioner of Health, and ISMS legal counsel, Mr. Robert B. Throckmorton, the Committee on Public Health wishes to submit the following resolution to the House of Delegates for consideration:

WHEREAS, The Committee on Public Health recognizes that the trend of public health thinking has changed from the more or less dictatorial basis of curative medicine of the past to the new concept of environmental health and cooperation with the public at the local level, and

WHEREAS, After careful study of numerous existing public health plans, the Committee feels the present plan of the State of Pennsylvania would most nearly and practically conform to this new concept of public health and be beneficial to both the medical profession and the people in the State of Iowa; now, therefore be it

Resolved, That the Iowa State Medical Society adopt a plan for preventive medicine and public health similar to that of the State of Pennsylvania, but modified to meet the specific needs in Iowa; and be it further

Resolved, That this House of Delegates authorize the Iowa State Medical Society to establish a trust fund, to be known as "The Educational and Scientific Trust of the Iowa State Medical Society," for educational and scientific projects in the field of medicine, said trust at all times to be under the control and direction of the Board of Trustees of the Iowa State Medical Society.

E. A. LARSEN, M.D., *Chairman*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

In March, this Committee met with a similar committee of the Iowa Pharmaceutical Association to explore ways and means of improving relations between doctors of medicine and pharmacists throughout Iowa. At this conference it was mutually agreed that perhaps a Code of Understanding between these two professions might serve a useful purpose. With the sanction of the State Medical Society, this Committee will proceed to cooperate with the Iowa Pharmaceutical Association in the development of a reasonable Code of Understanding, taking into account all problems and relationships that may arise between doctors of medicine and pharmacists.

The Committee further recommends that serious consideration be given to the development of county, district and state level meetings, in the hope that these meetings will promote better understanding and cooperation. In the early 1950's, the Iowa State Medical Society and the Iowa Pharmaceutical Association worked very closely together in arranging a large number of joint meetings of doctors and pharmacists at the local level. Your Committee believes it is time to reactivate work in this area.

F. M. BURGESON, M.D., *Chairman*

COMMITTEE ON HEALTH EDUCATION

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Several state medical societies have shown an interest in the Iowa State Medical Society's MEDICAL DIARY films and kinescopes. Preview prints have been sent to North Dakota, South Dakota, West Virginia, Florida, and Michigan. Michigan televised the film on "Anesthesiology" on March 30, and the film on "Gallbladder Surgery" is scheduled for showing on April 20, over station WJBK-TV in Detroit. Florida and West Virginia have indicated that their respective state societies and local television stations reacted very favorably to the films. As soon as specific arrangements are completed, the MEDICAL DIARY series will be supplied to these states. A rental fee of $15.00 per film and $7.50 per kinescope will be charged.

As indicated in the report of this Committee that

appears in the HANDBOOK, the Society has discontinued producing films, except on a very limited basis. It is the hope of this Committee that sometime in the near future, the American Medical Association will set up a central film exchange, from which interested state societies can borrow films for television showings.

R. B. STICKLER, M.D., *Chairman*

Supplemental Reports of Special Committees

COMMITTEE ON MENTAL HEALTH

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

As its supplemental report, the Committee on Mental Health submits the following resolution to the House for consideration:

WHEREAS, The Committee on Mental Health of the Iowa State Medical Society has been studying mental health clinics for several years, and

WHEREAS, This Committee prepared a set of Standards for Mental Health Clinics which were adopted by the Executive Council of the Iowa State Medical Society, and

WHEREAS, These standards received wide distribution throughout the state and were published in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, and

WHEREAS, Further guidance is required to maintain medical management and control of these mental health clinics for the proper protection of the people within our state, and

WHEREAS, There is considerable evidence these clinics are drifting toward lay control, with consequent detrimental health effects, and

WHEREAS, The creation of new mental health clinics by predominantly lay groups gives the people a false sense of security that they are receiving adequate *psychiatric* care; now, therefore be it

Resolved, That this House of Delegates recommend that mental health clinics (psychiatric clinics) be established if and when, and only when, adequate full-time psychiatric supervision has been obtained for them; and be it further

Resolved, That this 1958 House of Delegates approve this basic medical concept for future guidance of all county medical societies and members of the Iowa State Medical Society.

J. I. MARKER, M.D., *Chairman*

COMMITTEE ON INDUSTRIAL HEALTH

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The major project of this Committee has been the completion of a state-wide occupational health survey. An effort has been made to reach every employer in Iowa who hires 50 or more people. An explanatory letter and a rather extensive questionnaire were mailed to each. It is believed that in some instances that material contained the first suggestions about small-plant health programs to reach the hands of small employers, in whose plants a great majority of Iowa factory workers are to be found. The statistical results of this survey should be of some value, but its main object was to be informative and educational. For the same reason, we urged that the questionnaire be completely reviewed and returned, even though some questions had to be left unanswered.

We have been told that this detailed type of state industrial-health study was the first of its kind. Its successful completion has been the result of a complete Committee effort. The state was divided into districts, each representing an area of some industrial concentration. A committeeman was assigned to each district, and each was made responsible for the results from his area. One of the most difficult aspects of the work was the completion of an accurate mailing list for each district. Through the use of the BULLETIN of the Iowa Development Commission and the listings of local chambers of commerce, the manufacturers of Iowa were easily classified. The remaining forms included utilities, construction and transportation companies, wholesale and retail establishments, finance groups and such establishments as hospitals, schools and civil services. A great many letters and telephone calls were necessary, and we are grateful for the cooperation we received from chamber of commerce offices throughout Iowa.

The questionnaires were sent out from and were returned to the office of the State Medical Society. All tabulations of answers on returned questionnaires were done by Mrs. E. A. Larsen, the energetic wife of the chairman of our Public Health Committee. For over six months, she has classified the returns in employment groups, has recorded the answers from the four pages of the questionnaire and has made a complete file of all the comments that were made. We are indebted to her for her interest in the study and for her persistence in recording the results.

The returns from some districts after the first mailing were extremely poor. Further time was spent in checking the returns, and a serious follow-up was made locally in each district. The expenditures and efforts of the State Society would seem to have been well rewarded in the state-wide final results.

Of the 1,000 questionnaires sent out, nearly 40 per cent were returned, representing a total employment of 121,000 people. It is recognized that most of those *not* returned would have represented the employees of small firms. For those firms not represented by the figures in the final summary, it is hoped that the questionnaire and the accompanying letter served at least to arouse interest in the problems of industrial health.

It will take some time for the Committee to review the picture completely and to make use of the wealth of information that the questionnaire elicited, but some of the pertinent findings can be included in this report. First, the figures support the previously-held belief that most non-farm workers in Iowa are to be found in relatively small employment groups:

SIZES OF FIRMS REPLYING TO THE QUESTIONNAIRE

Number of Employees	*Number of Firms*
More than 2,000	7
1,000-2,000	19
500-1,000	31
200- 500	67
100- 200	100
50- 100	111
	335

The great majority of those that failed to return questionnaires—probably at least 90 per cent—would fall in the last three of those categories. Relative to in-plant health programs, if one classified industries as small on the basis of their not employing a physician full-time, it can be estimated rather accurately that 65 per cent of employees are in small plants. Since the survey was limited to employers of 50 or more persons, it is certain that at least 70 per cent of employees are

in these small groups. In this cross section of Iowa employment, we found that 29 per cent are women and 71 per cent are men.

We believe that at present the greatest stimulus to small-plant medicine and the greatest challenge to the small independent employer is the ever-increasing number of large corporations establishing Iowa branches and bringing with them planned medical programs, frequently guided by experienced medical directors. It seemed obvious that insufficient thought has been directed toward the influence that this movement is having. Almost one-third of our returns (32 per cent) came from such branch plants.

As to first-aid facilities, 46 per cent reported having less than the so-called "cigar-box first-aid kit." Fifty-seven companies indicated having full-time graduate nurses, but only 19 of them were designated as "nurses with industrial training." Sixty-three companies dispense some medications for minor medical complaints. Only 51 per cent use any type of first-aid or nurse's manual. Two years ago, the Iowa State Medical Society published STANDARD PROCEDURES FOR THE INDUSTRIAL NURSE, and copies of it were mailed to 1,000 Iowa employers. In response to our survey, 200 indicated that they would like another copy of the manual.

We know that very few physicians in Iowa are devoting full time to the practice of industrial medicine. Seventy-four employers stated that they use part-time doctors, many of whom devote no more than a few hours a week, and others spend half-days in the plant. In considering company-doctor relationships, 62 per cent of those answering said they felt that in-plant visits better acquaint the physician with the nature of the employee's work. Eighty-five per cent of the physicians were paid by fee bill; others by retainer; and a few by both. Although Iowa laws give the employer the privilege of choice of physician in compensation cases, 40 per cent allow the employee to choose his doctor; 48 per cent indicated employer choice of physician; and 12 per cent permit selection of physician by an insurance company.

The following two sets of answers reveal some information startling enough to deserve special attention. Sixty-four per cent of the employers who replied felt they do not have a clear understanding of Iowa laws regarding choice of physician in compensation cases. Almost 45 per cent said that sometimes they use other than doctors of medicine in these cases.

To our seven questions pertaining to preventive measures such as plant hygiene, sanitation and safety, the answers seemed of special interest. About half of the employers said they occasionally use outside consultants to improve plant conditions. However, 35 per cent indicated they had not been aware of the availability of such helpful service. As regards labor's sharing in such matters, only 50 per cent said they use employee representation in the formulation of health and safety policies.

Perhaps management's attitude toward the employee's personal physician is more favorable than is the attitude which many doctors have toward management. Ninety-four per cent said they felt they have good cooperation with the family doctor. Eighty per cent accept the opinion of the employee's physician as the sole determinant of the cause and length of illness absence. Although 88 per cent accept his opinion as to the employee's capability of returning to work, we should note that 40 per cent think that this privilege is sometimes misused. Employers were asked to estimate the percentage of employees who, they thought, would indicate they have no personal physician. A great majority estimated less than 10 per cent, but a few indicated as high as 60 or 70 per cent. A rather accurate spot check was made in a plant employing about 1,000 people (80 per cent women), and about 50 per cent indicated having no family physician.

Pre-employment physical examinations were used by only 45 per cent of the companies reporting. In six per cent, the applicant pays for the examination. The cost of exams ranged between $5.00 and $7.50, but in a few instances the cost was as high as $25.00. In 82 per cent the physician's opinion entered into job placement, and 60 per cent of the employers indicated an effort toward job placement for the physically handicapped.

As expected where there are many small employment groups, 95 per cent carry compensation insurance. Twenty-three per cent considered their rating as high; 60 per cent as average; and 17 per cent as low. Seventy per cent of those reporting carry non-occupational health insurance. The costs of such insurance were divided by the company and the employee in a variety of percentages. In 70 companies, the costs are borne completely by the employer. In most instances, these are recognized as fringe benefits. In one company with 1,000 employees and very liberal insurance coverage, it is known that such insurance costs 50 cents per hour for all employees. It is carried completely by the company.

As to medical records, 54 per cent use no standard type of record on each employee. Ninety-five per cent believe that they keep employee medical records confidential. Seventy-two per cent indicated that they would benefit from being able to compare averages with those of other companies.

Of the firms reporting, 149 (60 per cent) expressed a desire to meet with interested doctors of their communities to discuss ways of improving industrial health plans. Seventy-seven per cent expressed a desire to have a summary of this survey, when completed.

ADDENDUM

The Committee calls attention to the existence of a booklet entitled SCOPE, OBJECTIVES AND FUNCTIONS OF OCCUPATIONAL HEALTH PROGRAMS, prepared by the AMA Council on Industrial Health. The Committee is especially interested in a part of the section entitled "Activities to Attain Objectives," which contains the statement: "The right of the employee to select his attending physician should be maintained."

The Committee advises that existing Iowa regulations deny employees the privilege of selecting their own physicians in compensation cases.

C. J. LOHMANN, M.D., *Chairman*

COMMITTEE ON RURAL HEALTH

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The second Rural Health Conference was held at

the Memorial Union of Iowa State College on March 11, 1958, with only a fair attendance of physicians and lay persons. The program was informative and well presented, and it is hoped that through better publicity another year, a greater number of people may find it possible to attend. It is felt that doctors could develop this meeting into a worthwhile means of aiding rural people in their health problems and showing an interest in their welfare, through meeting with their leaders and representatives. Consideration is being given to the idea of holding next year's conference at the Institute of Agricultural Medicine at the State University in order to acquaint people with the personnel and facilities there.

Dr. F. C. Crockett, chairman of the AMA Council on Rural Health was present at our conference at Ames and participated briefly in the program. Because Iowa is one of the leading agricultural states, we are endeavoring to arrange for the National Conference on Rural Health to be held in Iowa sometime within the next few years. Since this scheduling is done three or four years in advance, we would like to have the support of the State Medical Society in this effort. This would require participation of some of the elected officers and a show of interest by others of the Society members, in addition to the Committee on Rural Health.

Though there has been considerable improvement in the number of physicians participating in the preceptorship program, we want to urge all members to consider serving in this capacity.

With a potential of over 1,600 preceptors, it would seem that 300 or 400 physicians could be enrolled as signifying a willingness to serve occasionally for a year or two at a time, in order that this responsibility need not become burdensome to the relatively few conscientious preceptors who have served year after year since the beginning of the program. Also, a greater enrollment of physicians will allow the Preceptorship Committee of the University to select those best qualified to serve, thus improving the entire program. We regret that Dr. Stuart Cullen, who has been chairman of the Preceptorship Committee since its beginning, is leaving the University of Iowa. Dr. Cullen not only has brought a great deal of credit to the College of Medicine but has been firmly convinced of the value of this program to the junior medical students. We heartily commend him for his efforts. He will be succeeded by Dr. C. E. Radcliffe as new chairman.

A preceptorship luncheon will be held Monday noon at 12:15 p.m. in the Des Moines Room of Hotel Savery. All preceptors, former preceptors as well as interested physicians are urged to attend. A short program and discussion has been arranged. The luncheon will adjourn at 1:45 p.m. to allow time to get to the afternoon sessions of the Convention.

J. W. GAUGER, M.D., *Chairman*

ISMS FEE COMMITTEE

(Referred to the Reference Committee on Insurance and Medical Service and to the Judicial Council, serving as a reference committee, for study and recommendation. For final action by the House of Delegates, see the reports of the reference committees.)

The chairman of the Fee Committee wishes to acknowledge the unstinting cooperation of the members of the Fee Committee: Drs. C. O. Adams, E. J. Connelly, W. L. Downing, R. H. Moe, M. J. Rotkow and R. B. Stickler, and the constant and invaluable administrative assistance of Mr. Wilbur R. Quinn, without whose collective efforts this revision would have been impossible.

This first revision of the Iowa Relative Value Schedule (which hereafter will be identified as the Iowa Unit Fee Index) represents meetings of the Fee Committee, meetings of subcommittees representing the interested groups of the State Medical Society, meetings of representatives of these groups with the Fee Committee, a joint meeting of general practitioners and surgeons, and the consultation and advice of the Judicial Council and the Executive Council of the Iowa State Medical Society.

Extensive analyses of fee schedules from other localities have been reviewed for purposes of comparison.

Although the dollar value of the unit may vary in different localities and circumstances, the index will still serve as a much needed guide for the individual practitioner, especially the young physician starting practice and for county and state negotiations of contractual care where applicable.

The Fee Committee again reviewed the feasibility of differential fees for specialists and again felt that it was unwilling to be placed in the position of judging or placing a dollar sign on the professional qualifications of any doctor of medicine.

Page 57 of the first edition entitled "Proration of Fees" has been the subject of much deserved criticism. The Judicial Council and the House of Delegates at the April, 1957, meeting of the State Society, ordered the Fee Committee to review this section in accordance with the principles of medical ethics. This has been revised as the result of the previously described meetings and in accordance with the original and subsequent directions of the Judicial Council. The ethical considerations involved are now clearly delineated under the heading "Cooperative Care of the Surgical Patient."

Again the Committee wishes to express its appreciation for the time and effort of all the members of the State Society who have given us the benefit of their considered judgment and constructive criticism. Insofar as practicable within the inelastic limits of any fee index, we have tried to incorporate their recommendations in this revision.

The Fee Committee feels that this second edition represents a great improvement over the first. The Committee will continue, under the direction of the Executive Council and the delegates here assembled, and with the continuing help and advice of all members of the State Society, to review and improve this Index as the need arises.

Mr. Chairman, I move the acceptance of this report and the adoption of the second edition of the Iowa Unit Fee Index.

W. C. ELLER, M.D., *Chairman*

COMMITTEE ON AUTOMOTIVE SAFETY

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

The chairman of the Committee, at the request of the Board of Trustees of the Iowa State Medical Society, attended the Mid-west Regional Citizen Leadership Conference sponsored by the President's Committee for Traffic Safety, in Chicago, Illinois, April 2, 1958. At that conference, the chairman of this Committee participated with approximately 75 other Iowa citizens in helping to formulate a priority need program for betterment of traffic safety for Iowa. This meeting, I believe, provided us with background information which should be very helpful in our future efforts.

On April 11, 1958, Mr. Russell Brown, the Acting Commissioner of Public Safety for the State of Iowa, met with the chairman in Mason City to discuss possible fields of cooperation between the Committee and the Commissioner in the field of promoting traffic safety. The Commissioner was very receptive to the idea of working with a committee of Iowa State Medical Society members in the field of consultation and research on medical aspects of automotive safety. A new division of research has been set up by the Commissioner within his department during the past year, and this would be an ideal spot for such a committee to begin cooperation. The Automotive Safety Committee has tentatively voted to offer its own membership as being willing to serve on such a committee. The chairman was very favorably impressed with the sincerity and ability of the Acting Commissioner of Public Safety and feels that he deserves all the support of the Iowa State Medical Society in his efforts.

The Committee would like to call attention to its recommendation that the membership of the Committee be expanded in accordance with its previous discussion, to include an ear, nose and throat man, an orthopedic man and a general surgeon.

L. W. SWANSON, M.D., *Chairman*

COMMITTEE ON PATIENT CARE

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Shortly after the ISMS Annual Meeting in 1957, the president created a Committee on Patient Care and directed that this new state group correlate its functions with the newly-created AMA Commission of Patient Care.

At the time of the Committee's inception, the members had no more than a general idea of the scope of their work. But as they started investigating the field, it became obvious that the types of nursing care given patients in hospitals, nursing homes, etc. were a part of the new Committee's functions, as well as the relationships between the medical profession and other groups, including the voluntary health agencies, the public health groups and the lay-directed organizations such as the polio foundation, hemophiliac foundation and others. In fact, it became the consensus of the members that their field of investigation should include patient care as a whole, in its broadest ramifications, whether the patient were in a hospital, in a nursing home or in his own home.

With this extremely broad concept of purpose, it is obvious that the new Committee could not begin functioning perfectly within the relatively short time of one year. Rather, it could be expected only to have glanced at a few of the problems that it might face. In its explorations, the Committee discovered that much of the spade work either had already been done or had been mapped out by previously existing committees of the ISMS, such as the Subcommittee on Chronic Illness, the Committee on Health Education, the Committee on Nursing Education and Service, the Committee on Industrial Health or some other group. Finding that many of its sources of information had been already tapped or well explored, our Committee thought it unwise to carry out any further intensive investigation this year.

For example, one of the first problems that our Committee tackled was that of the nursing care of patients in hospitals, as it related to nursing education and the training of registered nurses, practical nurses and nurses' aides. Much to our chagrin, we discovered that the Committee on Nursing Education and Service had covered this field very intensively. In our investigation of this area, a few startling and—as far as the medical profession is concerned—rather disconcerting situations were discovered. What little scratching of the surface our Committee was able to do in the other parts of its field brought to light similar overlappings and conflicts.

In this supplemental report to the House of Delegates, the ISMS Committee on Patient Care would like to offer the following definition of its purpose, and to make some recommendations for achieving that objective.

Definition: The purpose of the ISMS Committee on Patient Care should be to explore the whole field of patient care in its broadest aspects, whether such medical care is initiated by the medical profession itself, by ancillary professions or by lay groups, and to make sure that all forms of medical care are given under the aegis of the medical profession or under its guidance. This Committee should work in close liaison with the AMA Commission of Patient Care.

Method of Carrying Out Purposes: Since at the outset is was discovered that many older and smoothly-functioning committees had begun exploring all parts of the field in which the Committee on Patient Care should be interested, this Committee suggests to the House of Delegates:

1. That the Committee on Patient Care be made a permanent committee of the ISMS
2. That this Committee be permitted to function as its present members believe it should, and that the ISMS allow it to have access to the reports, findings and factual data of any other standing or activated committee of the ISMS to the extent that those findings are related to any aspect of patient care
3. That it be mandatory for the Committee on Patient Care to make annual reports and recommendations to the ISMS House of Delegates.

C. J. BAKER, M.D., *Chairman*

COMMITTEE ON GROUP INSURANCE

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Since the report for the HANDBOOK was written, there have been several new developments. The ISMS Executive Council has requested that a study be made to determine the advisability of establishing, through the ISMS office, a group plan under which all members may purchase Blue Cross-Blue Shield coverage.

The Blue Shield office was asked to determine what group rates might be possible under such a plan. A report just received points out two obstacles: (1) The Des Moines Blue Cross Plan and the Sioux City Blue Cross Plan do not provide identical benefits. (2) Many county groups are currently in force.

Depending upon the experience in these various areas, the group rate that might be offered the State Society as a whole would in some cases be more than the individual county societies are now paying.

The Committee requests the advice of the House of Delegates as to the desirability of pursuing further the question of attempting to establish a State Society Blue Cross-Blue Shield Plan.

Through the administrators of the Society's group accident and health plan, the Committee has received definite proposals for other forms of group insurance coverage. There are four plans of group life insurance that have been submitted by good companies. Also, there are definite proposals from two good companies for (1) group major-hospital and nurse insurance, and (2) group business-expense disability insurance.

These proposals have been received so recently that no recommendations can be made at this time. However, the Committee would like to ask permission of the House of Delegates to study these various group insurance proposals thoroughly, with the purpose of recommending any desirable plan or plans for the approval and acceptance of the ISMS.

GEORGE G. YOUNG, M.D., *Chairman*

Resolutions

MONTGOMERY COUNTY MEDICAL SOCIETY

RE: OFFICE OF COUNTY CORONER

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The present elective office of County Coroner has many obvious inadequacies; therefore be it

Resolved, That the Iowa State Medical Society in cooperation with the Iowa State Bar Association sponsor a bill in the next session of the Iowa State Legislature to eliminate said elective office as it now exists. Such bill will be to incorporate the duties of the Coroner in the duties of the County Attorney, or through the County Attorney's office with a provision for a medical examiner, said medical examiner to be appointed upon recommendation of the local County Medical Society.

BLACK HAWK COUNTY MEDICAL SOCIETY

RE: PHYSICIAN ANESTHESIA

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, Physician anesthesia in Iowa is a relatively new but growing and necessary field, and

WHEREAS, It is in the best interests of the patient to have a physician in constant attendance during the administration of an anesthetic, and

WHEREAS, It is still impossible to have physicians administering all the anesthetics in Iowa, and

WHEREAS, The doctors of Iowa should, through the State Medical Society, be encouraging the growth of physician anesthesia; now therefore be it

Resolved, That the Iowa State Medical Society go on record as recognizing the desirability of physician anesthesia as indicated in the unit fee index; and be it further

Resolved, That the Iowa State Medical Society not condone placing technician anesthesia on a par with physician anesthesia, either in ability or in financial remuneration, whether Blue Shield chooses to recognize a difference or not.

RE: IOWA MEDICAL SERVICE (BLUE SHIELD)

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, There is said to exist a harmonious relation between the Iowa State Medical Society and Iowa Medical Service (Blue Shield), as evidenced by the preponderance of physicians on the Blue Shield Board of Directors, and the concern of this House of Delegates in the problems and advancement of Iowa Blue Shield, all this in sharp contrast to the strained relations of a few short years ago, and

WHEREAS, This House of Delegates one year ago recommended that Blue Shield offer a policy paying the physician his usual equitable fees including obstetric services in the family contract, implying through this endorsement and subsequent actions by the various ISMS committees, especially the ISMS Fee Committee, their willingness to cooperate in the success of this new venture, and

WHEREAS, Blue Shield is now making available a so-called "Blue Chip" contract purporting to pay customary, usual and reasonable charges for all services, including obstetrics, but in fact singles out obstetric delivery for a maximum liability of sixty dollars ($60), such limitation not being applied to any other professional service, and

WHEREAS, This plan has apparently been instituted without even the knowledge of the Blue Shield Board of Directors, much less the formality of approval, rubber stamp or otherwise, and

WHEREAS, This semi-secret method of administrative directive casts some doubt on the motives of those responsible, the function—if any—of the physicians on the Blue Shield Board, and finally the right and privilege of Iowa Medical Service to call itself the "Doctors' Plan," in view of this apparent unwillingness to assume the responsibilities to the physician inherent in said endorsement; now therefore be it

Resolved, That Iowa Blue Shield, if it intends to sell this coverage ostensibly paying customary and usual charges, shall make this coverage available for obstetric delivery as well as all other professional services, paying not less than two-thirds the usual blanket charge of the physician for complete obstetric care—delivery and pre- and post-natal care, and be it further

Resolved, That Iowa Blue Shield discontinue its apparent policy of discrimination against certain participating physicians and their patients, as the price of increased sales or as defense against unsound premiums, and be it finally

Resolved, That the physician members of the Iowa Blue Shield Board of Directors, especially those appointed by the ISMS as evidence of the harmonious liaison between the two bodies, re-examine their role as representatives of the interests of all doctors of medicine and all classes of patients, even to the extent of eliminating certain false though marketable and profitable pretenses.

POLK COUNTY MEDICAL SOCIETY

RE: OBSTETRICAL SERVICE IN "BLUE CHIP" CONTRACT

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The House of Delegates in 1957 requested Blue Shield to prepare a plan, hereafter called the "Blue Chip Plan," which would pay each physician his usual charges for his service and that this plan be offered to the public, and

WHEREAS, This plan has been offered to the public, and since in all services performed by the physician he will be compensated by his usual charge except obstetrics which remains the same old indemnity plan as in $3,600 policies and

WHEREAS, This plan will result in great confusion to the policyholder, and is manifestly unfair and discriminating to those practicing obstetrics; therefore be it

Resolved, That the House of Delegates urgently request

Blue Shield to incorporate the usual charge for obstetrical services in the "Blue Chip Plan," and be it further

Resolved, To aid Blue Shield and to prevent exploitation, each county society secretary prepare and send to the State Medical Society and the Blue Shield Board a list of each member who practices obstetrics and his usual complete obstetrical delivery fee.

RE: COMMENDATION OF BOARD OF TRUSTEES

(Referred to the Reference Committee on Reports of Officers for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, In consideration of the varied activities and many demands made on the Iowa State Medical Society, and

WHEREAS, We believe careful evaluation of expense involved in program and activities is evident, and

WHEREAS, The Trustees have worked diligently in the best interests of the physicians of Iowa; therefore be it

Resolved, The Polk County Medical Society commends the Trustees of the Iowa State Medical Society, Dr. Arthur F. Fritchen of Decorah, Dr. Samuel P. Leinbach of Belmond, and Dr. George H. Scanlon of Iowa City.

MARION COUNTY MEDICAL SOCIETY

RE: MALPRACTICE SUITS

(Referred to the Reference Committee on Legislation and Public Relations for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, Though the Iowa State Medical Society believes patients are entitled to legal protection against any negligence by a physician, it is concerned about the increasing numbers of suits having no merit or justification, and

WHEREAS, In the majority of such cases the motivation of the plaintiff and his attorney is to acquire a huge sum of money, regardless of the validity of their claim, and

WHEREAS, In countries of central Europe it is the established law that if the plaintiff loses his case, the Court determines the fee to which the defense attorney is entitled and requires the plaintiff to pay it, and thus there is no incentive in those countries for lawyers to take cases on a contingent basis or to undertake suits that are not well founded, and

WHEREAS, If a similar law were enacted by the General Assembly of Iowa, requiring unsuccessful plaintiffs to pay the fees of defense attorneys,

1. Physicians would lose their constant fear of extortion suits,
2. Our court dockets would be burdened with fewer than half of the present number of such cases,
3. Taxpayers would be saved a considerable amount of money,
4. Insurance rates could be lowered,
5. The costs of medical care could be reduced, and
6. Immediate trial could be provided for legitimate law cases, and

WHEREAS, Other methods designed to cut down the numbers of extortion suits are merely palliative and do not get at the core of the trouble; therefore be it

Resolved, That in order to deter unnecessary law suits or nuisance suits instigated (started) by an attorney on a contingent or other fee basis, the state enact a law whereby the plaintiff, if he loses the law suit, must pay the fees of the defense attorney.

SCOTT COUNTY MEDICAL SOCIETY

RE: OBSTETRICAL SERVICE IN "BLUE CHIP" CONTRACT

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, It is the opinion of this Society that the new "Blue Chip" contract proposed by Blue Shield creates by omission an erroneous impression in the mind of the subscriber that the "usual fee charged" in the community will be paid by Blue Shield, and

WHEREAS, The actual limit of $60.00 falls far short of the usual fee in this county, and

WHEREAS, At the same time it is not the intention of this Society to insist that the usual full fee be covered since this would not be financially feasible without raising unduly the cost of the contract to the subscriber, and

WHEREAS, It is also the opinion of this Society that the accomplishment of progress in lowering markedly the perinatal morbidity and mortality, both infant and maternal, is largely attributable to good prenatal care, and that the flat obstetrical fee and good prenatal care have gone hand-in-hand in this country, and

WHEREAS, It is considered poor policy to separate charges for prenatal care and for delivery by fixed dollar amounts; therefore be it

Resolved, That the following amendments to the obstetrical clause of the above contract are recommended by this Society:

1. That the mention of any specified dollar amount limit be stricken, and that the words "two-thirds of the usual *full* fee" be inserted therefor.
2. That the following provision be inserted in the obstetrical clause and be emphasized by italics or bold type: "The above limit is understood to cover delivery and postnatal care, while the one-third portion of the full fee borne by the subscriber is the usual portion allotted for prenatal care."

THE JUDICIAL COUNCIL

RE: SELECTION OF NOMINATING COMMITTEE

(Referred to the Reference Committee on Articles of Incorporation and By-Laws for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

Resolved, That Chapter IV, Section 2 of the Articles of Incorporation and By-Laws be amended to read as follows:

"Not later than February 1 of each year there shall be elected a Committee on Nominations consisting of eleven delegates, one from each councilor district, elected by the respective degelates of that councilor district. It shall be the duty of this Committee to consult with the members of the Society and to hold one or more meetings at which the interests of the Society and the profession of the state for the ensuing year shall be carefully considered. At or before noon of the first day of March the Committee shall report the results of its deliberations to the Executive Secretary, who shall list these findings as an official ticket containing the names of the two or more members for the office of President-Elect and one or more members for each of the other offices to be filled at the annual election. This ticket must be sent to every member of the Society not later than thirty days previous to the first session of the House of Delegates. Two candidates for President-Elect shall not be named from the same county."

EIGHTH COUNCILOR DISTRICT

RE: EXPENSES FOR ALTERNATE DELEGATES TO THE AMA

(Referred to the Board of Trustees sitting as a reference committee. For final action by the House of Delegates, see the report of the Board of Trustees acting as a reference committee.)

WHEREAS, The alternate delegates to the American Medical Association are asked to attend and be active at the AMA medical meetings, and

WHEREAS, It is important that the alternates be in training to perform as delegates; therefore be it

Resolved, That the alternate delegates to the American Medical Association have their expenses paid to the AMA medical meetings.

COMMITTEE ON BLOOD BANKING

SCOTT COUNTY MEDICAL SOCIETY

IOWA ASSOCIATION OF PATHOLOGISTS

RE: ORGANIZATION OF AN IOWA ASSOCIATION OF BLOOD BANKS

(Referred to the Reference Committee on Miscellaneous Business for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The ISMS has recognized the importance of blood banking as a proper integral facet of the practice of medicine by the appointment of a committee in 1955 to study the various problems related to this specialty within the State of Iowa and at the national level,

WHEREAS, This Blood Banking Committee of the ISMS has conducted two surveys inquiring into the status of blood banking in Iowa,

WHEREAS, The Women's Division of the Iowa Farm Bureau

has conducted a third survey inquiring into the laymen's problems related to blood workability and donor procurement and by their obvious interest and valuable assistance have revealed, in part, the universal interest among citizens of Iowa in these problems,

WHEREAS, Information gathered by the Blood Banking Committee of ISMS from the Iowa Farm Bureau and from community blood banks operated by county medical societies (of which there are three in the State of Iowa) demonstrates convincingly the public relations value and the propriety from all other aspects of such facilities when operated by physicians as non-profit organizations existing only to promote the best interests of the public in community health and welfare,

WHEREAS, The experience of over twenty state blood bank associations has demonstrated the value of a coordinated blood banking program implemented at the national level by the American Association of Blood Banks which is indorsed by the American Medical Association, and

WHEREAS, The many small blood banks comprising 90 per cent of all blood banks in Iowa, have, with some notable exceptions, inadequate medical supervision and could benefit materially from alliance with state and national organizations, therefore be it

Resolved, That the ISMS vigorously indorses a proposal that the Blood Banking Committee of the ISMS and the Iowa Association of Pathologists jointly undertake to establish an organization to be known as the Iowa Association of Blood Banks, and be it further

Resolved, That the ISMS approves the advice of its Blood Banking Committee that the proposed Iowa Association of Blood Banks be governed by laws approved by the participating blood banks themselves but patterned in general after the by-laws of other similar State Blood Bank Associations, and be it further

Resolved, That the ISMS recommends that the proposed Iowa Association of Blood Banks seek affiliation with the American Association of Blood Banks.

CALHOUN COUNTY MEDICAL SOCIETY

RE: PRORATION OF FEES

(Referred to the Judicial Council sitting as a reference committee. For final action by the House of Delegates, see the report of the Judicial Council acting as a reference committee.)

WHEREAS, The proposals for the distribution of fees between the surgeon and assisting surgeon as indicated on page 57 of the Red Book of the Fee Committee are in our opinion inimical to the best interests of the practice of medicine as it exists in Iowa, specifically that the proportion of the surgical fee suggested for the assisting physician is insultingly low, amounting usually to less than 25 per cent of the total fee, and

WHEREAS, Inclusion of this group of figures may well result in the defeat of the entire Red Book proposal, which in general is of some value, therefore be it

Resolved, That this portion of the Red Book schedule be eliminated entirely or treated in a realistic way, and be it further

Resolved, That the Calhoun County Medical Society is unalterably opposed to this section of the Red Book schedule, page 57, and if this section remains in the schedule as it now is, this Society shall unalterably oppose the entire schedule.

HAMILTON COUNTY MEDICAL SOCIETY

RE: BLUE SHIELD

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The Iowa State Medical Society House of Delegates of 1957 authorized Blue Shield to issue contracts: (1) based on $3600 annual family income, and (2) assuming liability for a physician's customary and usual fee in full or with a variety of deductibles, and

WHEREAS, There are many national groups with corporation headquarters outside of Iowa but with employees in Iowa, making it necessary that Iowa Blue Shield issue contracts in conjunction with other Blue Shield Plans based on national account benefits, and

WHEREAS, Iowa Blue Shield should receive from this House of Delegates authority to write such contracts for these national groups, therefore be it

Resolved, That this House of Delegates approve such action as may be necessary by Iowa Blue Shield to issue contracts to employees in Iowa for those groups who request national account agreement nation-wide benefits.

LINN COUNTY MEDICAL SOCIETY

RE: OBSTETRICAL SERVICES IN "BLUE CHIP" CONTRACT

(Referred to the Reference Committee on Insurance and Medical Service for study and recommendation. For final action by the House of Delegates, see the report of the reference committee.)

WHEREAS, The Iowa Medical Service (Blue Shield) has already issued a limited number of full service coverage (Blue Chip) contracts and

WHEREAS, This contract provides a fee of only sixty dollars ($60.00) for antepartum care, delivery, and postpartum care and

WHEREAS, This fee is the same that appears in the $3,600 income level contract, now therefore be it hereby

Resolved, That the Linn County Medical Society deems this a gross inequity, and be it further

Resolved, That the full service coverage (Blue Chip) contract provide a fee for antepartum care, delivery, and postpartum care to equal at least two-thirds of the usual fee in the community or sixty dollars, whichever is the greater, and be it finally

Resolved, That the House of Delegates instruct the Blue Shield Board to cease offering this full service coverage (Blue Chip) contract to the public until this gross inequity is remedied.

RE: FEE FOR SURGICAL ASSISTANT

(Referred to the Judicial Council sitting as a reference committee. For final action by the House of Delegates, see the report of the Judicial Council acting as a reference committee.)

Be It Hereby Resolved, That the Linn County Medical Society is opposed to Formula "A" and Formula "B" as these formulae pertain to "Fee for Assistant" on page 5 of the Iowa Unit Fee Index. The Society also voices opposition to paragraph (3) page five of the Iowa Unit Fee Index.

The opposition is based on the following reasons:

1. This plan tends to further minimize the role of the referring physician in the care of "his patient."
2. The Linn County Medical Society feels that this schedule is just another of the many attempts by certain groups or organizations within our own ranks, that in the past several years have tried to minimize or eliminate the General Practitioner in the practice of medicine.

Be It Further Resolved, That all of page five of the Iowa Unit Fee Index be deleted except that part under Formula "A" pertaining to surgical fee and

Be It Further Resolved, That in lieu of the deleted portion of page five of the Iowa Unit Fee Index the following shall be substituted:

That the pro-ration of fees between the surgeon and assistant be continued in each community as it has in the past and

Be It Finally Resolved, That the pro-ration of fees between the surgeon and assistant shall continue to be governed by the pattern laid down by the Executive Council of the Iowa State Medical Society to its members in February, 1952, and by a further explanation as printed in the NEWS BULLETIN of the Iowa State Medical Society dated January 23, 1953.

POCAHONTAS COUNTY MEDICAL SOCIETY

RE: FEE FOR SURGICAL ASSISTANT

(Referred to the Judicial Council sitting as a reference committee. For final action by the House of Delegates, see the report of the Judicial Council acting as a reference committee.)

WHEREAS, The Fee Committee of the Iowa State Medical Society has submitted various formulas for the proration of surgical fees among physicians involved in surgical cases, and

WHEREAS, Any such fee proration made official by the Iowa State Medical Society will be accepted by prepayment health insurance companies and governmental agencies, and

WHEREAS, From the standpoint of the patient, the important considerations in this issue are reasonable *total* surgical fees and individual billing by all physicians involved in surgical care, and

WHEREAS, There are many variations throughout the State of Iowa in the geographic distribution of surgeons and hospitals, variations in the doctor-patient ratio and population density, and variations in prepayment health insurance coverage,

Now Therefore, Be It Hereby Resolved, That the Iowa

State Medical Society establish no fixed formula for the proration of surgical fees, but strongly encourage reasonable total surgical fees, and reiterate its policy of individual billing to the patient by each physician involved in the surgical case.

LIFE AND ASSOCIATE MEMBERSHIPS

LIFE MEMBERSHIPS
ON THE BASIS OF 50 YEARS' PRACTICE AND 30 YEARS' MEMBERSHIP

Allamakee	Clark W. Rominger, M.D., Waukon
Benton	George R. Woodhouse, M.D., Vinton
Dubuque	Anthony M. Loes, M.D., Dubuque
Lee	Robert S. Reimers, M.D., Fort Madison
Linn	W. J. Neuzil, M.D., Cedar Rapids
Mahaska	Edgar B. Wilcox, M.D., Oskaloosa
Montgomery	Gladys Cooper, M.D., Red Oak
Palo Alto	George H. Keeney, M.D., Mallard
Polk	Earl D. McClean, M.D., Des Moines
	Raleigh R. Snyder, M.D., Des Moines
Wapello	Elias B. Howell, M.D., Ottumwa
Warren	Lester E. Hooper, M.D., Indianola
Webster	William R. Turner, M.D., Fort Dodge
Woodbury	Samuel Kline, M.D., Sioux City
	Charles P. McHugh, M.D., Sioux City

ASSOCIATE MEMBERSHIPS
ON THE BASIS OF RETIREMENT OR INCAPACITATION

Cerro Gordo	Ezra L. Wurtzer, M.D., Mason City
	Nicholas C. Stam, M.D., Mason City
Delaware	Harry H. Ennis, M.D., Manchester
Dubuque	J. Carl Painter, M.D., Dubuque
Linn	John E. Stansbury, M.D., Cedar Rapids
	Ernest G. Kieck, M.D., Cedar Rapids
Polk	Hiram B. Henry, M.D., Des Moines
	Grace O. Doane, M.D., Des Moines
Woodbury	James E. Reeder, Sr., M.D., Sioux City

Dr. Lonnie A. Coffin, of Farmington, was nominated for the Outstanding General Practitioner Award by Dr. L. C. Pumphrey, of Keokuk, acting on behalf of the Van Buren County Medical Society.

The House of Delegates was declared in recess at 4:20 p.m.

WEDNESDAY MORNING SESSION
APRIL 23, 1958

The Wednesday morning session of the House of Delegates was called to order at 7:30 a.m. The House of Delegates approved the taking of attendance by registration cards. There were 87 delegates, 13 voting alternates, and 17 ex-officio members present.

County	*Delegate*	*Alternate*
Appanoose	E. A. Larsen	
Black Hawk	Craig Ellyson	
	T. L. Trunnell	
	F. G. Loomis	V. I. Sciscent
Boone	R. L. Wicks	
Buchanan	R. L. Knipfer	
Buena Vista	H. E. Farnsworth	
Calhoun	C. R. Wilson	
Carroll	J. M. Tierney	
Cass	R. H. Moe	
Cerro Gordo	L. W. Swanson	
	J. K. MacGregor	
	Sidney Brownstone	
Chickasaw	P. C. Richmond	
Clinton		R. J. Nelson
	V. W. Petersen	
Dallas-Guthrie	W. A. Castles	
	W. A. Seidler	
Davis		J. R. Scheibe
Decatur	E. E. Gamet	
Des Moines	F. G. Ober	
		J. L. Saar
Dubuque	D. F. Ward	
	C. J. Schueller	
	E. J. Connelly	
Emmet	G. B. Johnston	
Fayette	A. F. Grandinetti	
Floyd	O. H. Banton	
Grundy		H. V. Kahler
Hamilton	G. A. Paschal	
Hancock-Winnebago	D. F. Shaw	
Harrison	A. C. Bergstrom	
Howard		C. W. Rainy
Humboldt	J. H. Coddington	
Iowa	D. F. Miller	
Jasper	J. W. Billingsley	
Jefferson	J. W. Castell	
Johnson	K. R. Cross	
	C. E. Shrock	
	S. C. Ware	
	A. C. Wise	
Jones		T. M. Redmond
Kossuth	Paul Warner	
Lee	L. E. Pumphrey	
Linn		J. T. Hecker
	J. J. Redmond	
	C. H. Stark	
Lucas	H. D. Jarvis	
Madison	G. J. Anderson	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	D. D. Harris	
	L. O. Goodman	
Mills	M. L. Scheffel	
Montgomery	Oscar Alden	
Osceola	T. J. Carroll	
Page	J. R. Eisenach	
Plymouth	F. D. Christensen	
Pocahontas		J. M. Rhodes
Polk	D. F. Crowley, Jr.	
	R. A. Dorner	
	N. W. Irving, Jr.	
	T. A. Bond	
	J. T. Bakody	
	F. M. Burgeson	
	J. T. McMillan	
	B. M. Merkel	
	M. E. Alberts	
	C. W. Losh, Jr.	
	R. B. Stickler	
	D. C. Wirtz	
Pottawattamie	H. W. Mathiasen	
	G. H. Pester	
Sac	J. W. Gauger	
Scott	P. E. Gibson	
	J. H. Sunderbruch	
	A. B. Hendricks	
	J. F. Bishop	
Shelby	L. V. Larsen	
Story	G. E. McFarland, Jr.	
	G. E. Montgomery	
Tama	C. W. Maplethorpe, Sr	
Union	H. J. Peggs	
Van Buren	L. A. Coffin	
Wapello	P. D. McIntosh	
	K. E. Lister	
Warren	C. A. Trueblood	
Washington	D. G. Sattler	
Wayne	C. N. Hyatt	
Webster	C. J. Baker	
	H. H. Allen	
Winneshiek	E. F. Hagen	
Woodbury		P. M. Cmeyla
		J. E. Dvorak
	P. L. Bettler	
		R. M. Conmey
Worth		B. H. Osten
Wright	G. E. Schnug	

DELEGATE AT LARGE

T. D. Throckmorton

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

Fred Sternagel	B. F. Howar
W. D. Abbott	S. D. Porter
R. F. Birge	C. E. Radcliffe
C. V. Edwards	J. H. Sunderbruch
G. H. Scanlon	G. S. Atkinson
A. F. Fritchen	C. H. Flynn
S. P. Leinbach	R. N. Larimer
R. M. Dahlquist	F. C. Coleman
P. W. Brecher	

Minutes of the April 20 meeting of the House of Delegates were read and approved. The election followed and the following physicians were chosen:

President-Elect	John Billingsley, M.D., Newton
Vice President	H. E. Farnsworth, M.D., Storm Lake
Trustee	C. H. Flynn, M.D., Clarinda
Speaker of the House of Delegates	*C. V. Edwards, M.D., Council Bluffs
Vice Speaker of the House	*Harold Morgan, M.D., Mason City
Delegate to the AMA	*Frank Coleman, M.D., Des Moines
	*Robert N. Larimer, M.D., Sioux City
Alternate Delegate to the AMA	*C. H. Stark, M.D., Cedar Rapids
	*H. W. Mathiasen, M.D., Council Bluffs

* Reelected at the 1958 Annual Meeting.

Councilors:	1st District	*R. M. Dahlquist, M.D., Decorah
	4th District	M. A. Blackstone, M.D., Sioux City
	6th District	Cecil Seibert, M.D., Waterloo
	11th district	L. V. Larsen, M.D., Harlan

* Re-elected at the 1958 Annual Meeting.

The House of Delegates approved a motion presented by the secretary of the Society on behalf of the Board of Trustees ratifying, confirming and approving the acts of the Trustees and officers of the Society in the conduct of the business of the Iowa State Medical Society during the past year.

Reference Committee Reports

The following reference committee reports were presented and approved by the House of Delegates.

THE BOARD OF TRUSTEES

The Board of Trustees, meeting as a reference committee, considered the resolution proposed by the Eighth Councilor District, regarding travel expenses of alternate delegates to the AMA, which had been referred to it by the House of Delegates.

After carefully considering this recommendation, the Board of Trustees respectfully requests permission of the House of Delegates to study the entire subject of Iowa State Medical Society representation at meetings of the American Medical Association in the hope that a plan can be developed for designating representatives to the American Medical Association that will provide the utmost in efficiency and economy.

Mr. Speaker, I move acceptance of this report.

G. H. SCANLON, M.D., *Chairman*
S. P. LEINBACH, M.D.
A. F. FRITCHEN, M.D.
FRED STERNAGEL, M.D.
W. D. ABBOTT, M.D.
R. F. BIRGE, M.D.
RUBIN H. FLOCKS, M.D.
N. BOYD ANDERSON, M.D.

REPORTS OF OFFICERS

This Reference Committee had two items referred to it. It considered first a resolution sponsored by the Polk County Medical Society commending the Trustees of the Iowa State Medical Society for its diligent work in the interest of the physicians of Iowa. The Reference Committee agrees with this resolution, and accordingly recommends its acceptance by this House of Delegates. Mr. Speaker, I so move.

The Committee studied the fine supplemental report of the Board of Trustees, and is in agreement that the State Society should maintain sufficient financial reserves at all times, and that $60,000 as a minimum reserve is proper, especially in view of the Society's annual financing obligations. The Reference Committee feels the Board of Trustees should be allowed to exercise its judgment in determining what should constitute a proper reserve for the Society in terms of the economy at the time.

It was not referred to in the report of the Board of Trustees, but since the organization of it would become at least an indirect responsibility of the Board of Trustees, the Committee recommends that contact be established with the dean of the College of Medicine at Iowa City to discuss with him the possibility of establishing a course for the teaching of subjects related to organized medicine to medical students in their senior year. The Committee feels very strongly that medical students being graduated must have good understanding of the intent and purpose of organized medicine if the private practice of medicine is to survive.

The Reference Committee believes the preceptor program is extremely valuable in preparing medical students for entrance into private practice, and wishes to compliment the many physicians who have inconvenienced themselves in the interest of providing additional training for these medical students.

The Committee agrees with the Board of Trustees that an informed membership is essential and that a well-developed grass roots informational plan is necessary to accomplish this end.

The Reference Committee realizes that the State Society office has always been open to any of the members, but was pleased to hear the Chairman of the Board of Trustees reiterate the fact that any member is welcome to visit the Society office to inspect and inquire into the functions and actions not only of the Board of Trustees but of the entire operation.

Finally, the Reference Committee commends the members of the Board of Trustees for their untiring efforts in overseeing the business affairs of the Iowa State Medical Society.

L. A. COFFIN, M.D., *Chairman*
OSCAR ALDEN, M.D.
J. M. TIERNEY, M.D.
J. W. BUSHNELL, M.D.
D. C. WIRTZ, M.D.

LEGISLATION AND PUBLIC RELATIONS

The Reference Committee recommends that the Supplemental Report of the Committee on Patient Care be accepted with the last paragraph modified to read:

1. That the Committee on Patient Care be made a continuing special committee of the Iowa State Medical Society

2. That if this Committee is permitted to function as its present members believe it should, the Iowa State Medical Society help it to have access to the reports, findings and factual data of any other standing or activated committee of the Iowa State Medical Society to the extent that those findings are related to any aspect of patient care, this to be handled at the administrative level

3. The third numbered item is to be deleted.

Mr. Speaker, I move the adoption of this portion of our report.

The Reference Committee recommends the approval of the Supplemental Report of the Sub-Committee on Interprofessional Activities. Mr. Speaker, I move the adoption of this portion of our report.

The Reference Committee recommends the approval of the Supplemental Report of the Health Education Committee. Mr. Speaker, I move the adoption of this portion of our report.

The Reference Committee recommends the *disapproval* of the resolution introduced by Marion County Medical Society in reference to malpractice suits.

Mr. Speaker, I move this resolution not be adopted.

The Reference Committee recommends approval of the resolution submitted by Montgomery County Medical Society regarding Office of County Coroner amended to read as follows:

Resolved, That the Iowa State Medical Society in cooperation with other interested groups support a bill in the next session of the Iowa State Legislature which would eliminate the elective office of coroner as it now exists and establish in place of it a medical examiner system which would be designed to serve the best interests of the State of Iowa.

Mr. Speaker, I move the adoption of this resolution as amended.

The Reference Committee in general approves the Supplemental Report of the Committee on Legislation with the following comments, changes and additions.

The Reference Committee would like to emphasize the paragraph on interesting physicians in becoming candidates for the Iowa Legislature. The Reference Committee advises for the moment against making cancer a legally reportable disease, instead recommending voluntary reporting of cancer to a central registry for scientific purposes.

The Reference Committee approves of the opposition to the Forand type of medical care legislation and recommends the adoption of a positive program of research and a study of the methods of providing medical care for the aged, to include:

1. Study of possible expansion of Blue Cross-Blue Shield programs to include more of the older age group
2. Study of the possibility of increased utilization of nursing homes
3. Study of increased use of commercial insurance for the older age groups
4. Approval of AMA research on the medical care problems of older age groups.

Mr. Speaker, I move the adoption of this report as amended.

The Reference Committee recommends approval of the Supplemental Report of the Committee on Automotive Safety. Mr. Speaker, I move the adoption of this portion of the report.

Mr. Speaker, I move the adoption of this Reference Committee report as a whole.

L. W. SWANSON, M.D., *Chairman*
PAUL WARNER, M.D.
R. F. FRECH, M.D.

MISCELLANEOUS BUSINESS

The Reference Committee on Miscellaneous Business met at 8:30 a.m. Monday, April 21, 1958, and considered supplemental reports submitted by the following committees: Committee on Rural Health, Committee on Industrial Health, Committee on Public Health, Committee on Mental Health and Committee on Medical Education and Hospitals. After careful consideration and study of these supplemental reports, the Reference Committee moves their acceptance.

The Committee also considered a resolution sponsored by the Blood Banking Committee of the Iowa State Medical Society, Scott County Medical Society, and the Iowa Association of Medical Pathologists, requesting Medical Society endorsement of a proposal that the Blood Banking Committee of the Iowa State Medical Society and the Iowa Association of Medical Pathologists jointly undertake to establish an organization to be known as the Iowa Association of Blood Banks and further that the proposed Iowa Association of Blood Banks seek affiliation with the American Association of Blood Banks. The Reference Committee approved this resolution in toto as it was presented to the House of Delegates on Sunday, April 20, 1958.

The Reference Committee commends all of the members of the committees referred to herein, including the sponsors of the blood banking resolution, for their fine work and exceptional devotion to the interests of the Iowa State Medical Society.

Mr. Speaker, I move acceptance of this entire report.

G. E. MCFARLAND, JR., M.D., *Chairman*
D. F. WARD, M.D.
G. A. PASCHAL, M.D.
J. W. GAUGER, M.D.
SIDNEY BROWNSTONE, M.D.

INSURANCE AND MEDICAL SERVICE

Your Reference Committee on Insurance and Medical Service met and considered supplemental reports from the Committee on Group Insurance, the Subcommittee on Prepayment Medical Care, the ISMS Fee Committee and the Committee on Medical Service (Medicare). It also took up the two resolutions from Black Hawk County and one each from Polk, Scott, Hamilton and Linn Counties which had been referred to it. These items were not necessarily considered in the order in which I have just listed them, however.

Your Reference Committee first considered the supplemental report of the Committee on Group Insurance. Dr. Young's committee is presently concerned with the possibility of a state-wide Blue Cross-Blue Shield group contract for physicians. It recognizes that such a plan may not be so attractive in certain geographical areas as are the existing Blue Cross contracts. It feels that for the present it cannot recommend such a state-wide contract for that reason.

The Group Insurance Committee is also exploring various group life insurance programs and other types of coverage. These proposals have been presented to the Committee so recently, however, that no recommendations regarding them can be made at this time. The development of the successful group accident-and-health plan now enjoyed by our members proves the ability of the Committee. We recommend that the Committee be urged to continue its exploration of these new proposals.

I move the adoption of this section of this report.

The second item presented to our Reference Committee was the supplemental report of the Committee on Medical Service. That report was submitted for informational purposes only, and no specific action of the House was requested. However, your Reference Committee feels that it would be remiss if it did not allow the House of Delegates to review the Medical Service Committee's work officially, and to offer it some suggestions which might allow it to proceed with its work in the future.

The Medicare program is apparently here to stay. It is necessary that the ISMS have a team of trained negotiators to develop the Medicare contract. On their recent trip to Washington, the negotiators found that they were not truly in a position to function. Your Reference Committee suggests the following means of improving the situation in so far as the negotiators are concerned:

1. We believe that in case of a breakdown of negotiations on a single procedure, in which a variation in the fee must be developed within the Iowa Unit Fee Index, that the number of units should be changed, rather than the value of the unit for that particular procedure. We recommend that this same formula be applied for groups of procedures, if such becomes necessary.

2. We believe the negotiators should be able to alter up to a total of five per cent of the items within each specialized category of procedures.

3. Your Reference Committee believes that the ISMS Fee Committee should set up a board of authorized consultants, one from each specialty, and that the function of the members of such a board should be to act as spokesmen for their respective specialties, with authority to vary the number of units applicable to the procedures of their respective specialties. Details for the development of this board should be developed immediately by the proper authorities of the ISMS. These men at home could then be consulted by the negotiators in Washington, and could give immediate authority for changes in the unit values of single procedures.

I move the adoption of this section of this report.

As regards the Black Hawk County resolution on the subject of physician anesthesia, your Reference Committee wishes to say that it recognizes the desirability of having anesthetics administered by doctors of medicine, and reaffirms its belief that anesthesiology is a part of the practice of medicine. Because of the numerous variables in the present methods by which anesthetics are given, however, it cannot at this time recommend any single formula for the payment of the persons who may be giving the anesthetics.

We move the adoption of this portion of our report.

Your Reference Committee next considered the other Black Hawk County resolution and those from Polk, Scott and Linn Counties, all of which concerned the payment for obstetrical services in the present Blue Chip contract of Blue Shield. The Reference Committee believes that the physicians who do obstetrics should, in fact, have the "usual and regular fee" of their community, and it recommends that Blue Shield establish the procedures which may be necessary for determining this fee, and make the appropriate changes in present and future contracts.

However, we bring to the attention of physicians who are doing obstetrics that pre- and postnatal care consists usually of office calls, and both physicians and patients must recognize the many variables that obtain. Obstetricians must recognize that at this time Blue Shield does not pay for ordinary office and home calls, and accordingly the present so-called obstetric fee is for actual care during the "delivery period." We wish to point out that good obstetrical care actually includes pre- and postnatal care as well as delivery care, and accordingly we recommend that Blue Shield explore the possibility of including the payment for these parts of true obstetrical care. Your Committee suggests that possibly pre- and postnatal care could be included as a rider to the standard Blue Shield contract, to be paid for in addition to the regular premium. We are not sure that this rider might not actually be as expensive to the public as direct payments to the physician, and hence may not be a salable insurance product.

We move the adoption of this portion of our report.

Your Reference Committee feels that the Hamilton County resolution should be rejected. The present policy of the Iowa State Medical Society is that full-service contracts are limited to the $3,600 group. The adoption of this resolution would be discriminatory against all present subscribers who hold full-service policy contracts with Iowa Blue Shield, and would in fact allow certain Iowa residents to purchase full-service contracts at a level above $3,600 outside of the State of Iowa, while the majority of Iowa residents were not allowed that privilege. Your Committee recognizes the limitations that are now placed on Iowa Medical Service, and it would call this to the attention of the House of Delegates.

I move the adoption of this section of our report.

Your Committee then considered the supplemental report of the Subcommittee on Prepayment Medical Care. This report consisted mainly of information. It showed the continuing development of a liaison between medicine and the commercial insurance industry. The Health Insurance Foundation represents a group of insurance companies which cover approximately 90 per cent of the commercial health insurance industry. Their spokesman indicated that the firms he represents are friendly to physicians, that they believe in free enterprise and in the patient's right to free choice in the selection of a physician. Medicine needs these friends. This Reference Committee believes that two paragraphs from his statement are particularly worth quoting:

"We are concerned about our ability to do the job (if voluntary health insurance is to succeed). Our concern is with costs. To be able to pay two-thirds of the bill, we must broaden the coverage we sell. In addition, we must keep pace with inflation and the ever continuing advances in medicine. We are fearful of pricing ourselves out of the market. Only the government can do the job more cheaply. They can do it more cheaply only by paying less for medical service. This, we know, will down grade the quality of medical service."

Your Reference Committee suggests that all physicians read this Subcommittee's complete report. It contains practical suggestions of value.

I move the adoption of this section of our report.

Your Reference Committee then considered the supplemental report of the ISMS Fee Committee, with the exception of the paragraph beginning "Page 57 . . ." Your Reference Committee reminds the delegates that page 5 of the revised fee schedule, which was sent to the delegates packaged with a copy of the HANDBOOK, has been replaced with a corrected copy.

The past year has shown the value of the Fee Index, and many physicians use it in their daily work. It has been of value to Blue Shield, in the negotiating of Medicare, in the establishment of local fee schedules, and so on. It would seem that there was, and is, value in the developing of the Iowa Unit Fee Index. Your Reference Committee recognizes that changes have been made and will need to be made in individual items, and that the job of establishing a fee index can never be completely finished. Your Reference Committee commends the chairman of the Fee Committee and his valuable assistants who must have spent many hours of hard work and many hours of soul-searching in developing the second edition of the Iowa Unit Fee

Index. We believe our entire membership is indebted to the members and co-workers of this Committee.

I move the adoption of this section of our report.

The next item of business presented to the Reference Committee was Dr. Tom D. Throckmorton's supplemental report on Blue Shield.

Your Reference Committee has carefully studied Dr. Throckmorton's report. His statements in regard to the complexities of insurance in general and Blue Shield in particular show his prolonged study and wide understanding of the problem. He points out some of the trends in public thinking in regard to insurance and medicine, and he suggests possible changes with which Blue Shield must contend. He emphasizes that the interests and problems of Blue Shield and of physicians are the same. He urges each physician to acquaint himself with as many of these problems as possible because his own practice will be conditioned by these outside influences.

Dr. Throckmorton made three specific requests of the House of Delegates. He asked for approval of a $5,000 income limit policy. Your Reference Committee reminds you of the present policy of the Iowa State Medical Society with regard to the $3,600 full-service limitation. The Committee does not believe the members of the Society are willing to accept a change of that figure at this time. However, we also feel that with the rapidly changing economic times in which we live, with the expansion of the average income, the inflation of the dollar and so on, that fixation of the income limit at $3,600 may be completely outmoded and unrealistic, even at present or shortly. Accordingly, we believe that Blue Shield should continuously keep the members of the Society informed, so that an intelligent medical profession can face these problems. The development of the new publication which will be sent to every participating physician will attempt to present these problems, and the members of the State Society are requested to read it. It will attempt to show the public's attitude toward Blue Shield and Blue Cross in a factual manner, and we are assured that it is not to be simply a means of disseminating Blue Cross-Blue Shield propaganda.

Dr. Throckmorton requests the approval of policies which may not be complete—i.e., may not offer all services to the patient. Your Committee recognizes that Blue Shield needs certain flexibility in its contracts, and we approve this request. Your Committee, however, comments that it recognizes the pitfalls and possible abuses to which this flexible program is subject, and we believe it should be sold honestly. Where such contracts are sold to groups, the local medical society should be informed of the local variations in the contracts.

Blue Shield requests the Iowa State Medical Society to expand its informational program to physicians. We believe that it is only by the development of this understanding that Blue Shield can progress and expand, and thus we recommend greater physician education as outlined. Your Committee, however, suggests to Blue Shield that a well-informed sales force, with perhaps a better service to the subscriber at his home town level, would also be of value to Blue Shield.

I move the adoption of this section of our report.

I move the adoption of this report as a whole.

As chairman, I wish to thank the members of my Committee, who worked at great length and who contributed their time and efforts and independent thinking to the solution of the problems which were presented to them.

ROBERT N. LARIMER, M.D., *Chairman*
A. J. GANTZ, M.D.
PAUL W. BRECHER, M.D.
R. L. KNIPFER, M.D.
D. F. CROWLEY, JR., M.D.
C. N. HYATT, M.D.
A. B. HENDRICKS, M.D.

ARTICLES OF INCORPORATION AND BY-LAWS

A meeting of the Reference Committee of the House of Delegates on the Articles of Incorporation and By-Laws was held at 8:30 a.m., April 21, 1958, in Room A, Third Floor of the Auditorium, with all members present. In addition, comments were made by Dr. R. F. Birge, Dr. Donovan Ward, Mr. Donald L. Taylor and Mr. Robert Throckmorton with reference to the matters under consideration. The Committee voted to approve the supplemental report of the Committee on Articles of Incorporation and By-Laws with only one revision, namely, that the proposed amendment to Article III, Section 1, read as follows:

Amend Article III, Section 1, to read as follows: "component societies shall consist of those county or multiple county societies which now or hereafter may from time to time hold charters from this Society, their membership consisting of physicians holding a degree of Doctor of Medicine or Bachelor of Medicine *and possessing a valid Iowa license to practice medicine and surgery or to practice as a resident physician;* provided, however, that their membership may also include physicians who on or before April 23, 1958, were members of a component society and who hold a degree of Doctor of Medicine or Bachelor of Medicine and are legally licensed to practice medicine or to practice as a resident physician in Iowa."

It is proposed that the amendments to the Articles of Incorporation and By-Laws be acted upon by the House of Delegates at this time as follows:

Amend Article IV, Section 3 so that the last sentence thereof shall read as follows: "The Board of Trustees shall employ a general administrative officer to be known as the Executive *Director* of the Society, who need not be a physician or a member of the Society."

Amend Article IV, Section 14 so that the last sentence of the first paragraph shall read as follows: "The Board of Trustees may employ an Executive *Director* and assistants for the Society, none of whom need be a physician or member of this Society, and shall fix the salaries and other compensations of the Executive *Director* and all other persons employed by or for the Society."

BY-LAWS

Amend all of Chapter I of the present By-Laws of the Iowa State Medical Society so that said Chapter I will read as follows:

Chapter I

MEMBERSHIP

Section 1. Membership in the Iowa State Medical Society shall consist of Active, Life and Associate

members as defined by Article III of the Articles of Incorporation and also of Resident Physician members *and Honorary members.** The official roster of members shall be maintained at all times in the office of the Secretary. It shall be composed of the names of those physicians *or Honorary members* certified to the Executive Office of this Society as provided for by Chapter VI of these By-Laws, and duly approved by the Judicial Council. Registration of *the name of a physician or Honorary member* upon the official roster shall be *prima facie* evidence of his membership and his right to the privileges inherent in that membership.

Section 2. All members of the Iowa State Medical Society shall be privileged to attend all sessions of any annual or special meeting except as set forth in Chapter III, Section 2. They may participate in all proceedings except as elsewhere prohibited in the By-Laws. Any active or life member shall be eligible to any office within the gift of the Society, providing such member is a citizen of the United States and has been a member of this Society in good standing for five years.

Section 3. *Except for Honorary members,* no person who is under sentence of suspension or expulsion from any component society of this Society, or whose name has been dropped from the component's roll of members for any reason, or who is delinquent in payment of dues to this Society, shall be considered to be in good standing as a member of this Society. No person other than a member of this Society in good standing or an officially registered guest *or an Honorary member* shall be permitted to take part in any of its proceedings.

Section 4. Each member in attendance at any annual or special meeting shall be registered, indicating *either* the component Society of which he is a member *or that he is an Honorary member.* No member shall take part in any of the proceedings of any meeting until he has complied with the provisions of this section.

Section 5. For the purpose of medical defense, a member shall be regarded as in good standing only when his dues have been accepted in due course. No member under suspension or expulsion shall be eligible to the benefits of the medico-legal fund for any alleged wrongful act committed while under suspension or expulsion. Should a member in good standing move to another state, such member shall not be entitled to medico-legal defense for any professional act arising after his removal from this state.

Section 6. A member of a component society who has been convicted of a felony (a plea or verdict of guilty, or a conviction following a plea of *nolo contendere,* is deemed to be a conviction within the meaning of this section), or whose license to practice medicine in this State has been revoked or suspended, shall be dropped from membership in this Society automatically as of the date of conviction, revocation, or suspension. He shall be so notified by this Society and of his rights of appeal. A physician so dropped from membership may not reapply for membership in this Society until one year has elapsed unless the period of time shall have been shortened by action of the Judicial Council upon appeal by the member.

* Two deleted sentences transferred from Section 1 to Section 7.

Section 7.* Resident physician membership in this Society shall consist of those physicians licensed in Iowa to practice medicine and surgery as Resident Physicians, who hold a degree of Doctor of Medicine or Bachelor of Medicine, who are members in good standing of the component medical societies, who have been so certified to the headquarters of this Society and who have been approved by the Judicial Council. They shall not have the right to vote or to hold office.

Section 8. *Any person, either a member of the medical profession or a layman, may be elected to Honorary membership in this Society in consideration of his outstanding contribution to the advancement of human welfare. In order for a person to be elected to Honorary membership, his name shall first be presented to the Judicial Council by any member of the Society. If the nomination is approved by the Judicial Council, it shall be submitted to the House of Delegates and, if approved by two-thirds of the members present, the person so nominated shall thereupon be duly elected to Honorary membership. Honorary members shall be accorded all the privileges of active members but shall be exempt from the payment of dues and they shall not have the right to vote or hold office.*

(NOTE: Italics have been used solely to aid in understanding changes that are proposed. They will not be used in subsequent printings of the Articles of Incorporation and By-Laws if amendments are adopted.)

The Reference Committee recommends study by the Standing Committee on the Articles of Incorporation and By-Laws with reference to the establishment of a service membership in the Society which would include members of the Armed Forces and Veterans Administration within the Society.

The Committee considered the following resolution introduced by the Judicial Council: Subject: Proposed amendment to the Articles of Incorporation and By-Laws as appended:

Resolved, That Chapter IV, Section 2 of the Articles of Incorporation and By-Laws be amended to read as follows:

"Not later than February 1 of each year there shall be elected a Committee on Nominations consisting of eleven delegates, one from each councilor district, elected by the respective delegates of that councilor district. It shall be the duty of this Committee to consult with the members of the Society and to hold one or more meetings at which the interests of the Society and the profession of the state for the ensuing year shall be carefully considered. At or before noon of the first day of March the Committee shall report the results of its deliberations to the Executive Secretary, who shall list these findings as an official ticket containing the names of the two or more members for the office of President-Elect and one or more members for each of the other offices to be filled at the annual election. This ticket must be sent to every member of the Society not later than thirty days previous to the first session of the House of Delegates. Two candidates for President-Elect shall not be named from the same county."

It was the feeling of the Committee that this proposed amendment limited the opportunity for members of the Society to participate in the deliberations of the Committee on Nominations. Therefore, the Committee voted not to recommend adoption of the Judicial Council's proposed amendment. After careful consideration of this problem, it was agreed that the selection of the Committee on Nominations as presently provided for in Chapter IV, Section 2 of the Articles of Incorporation and By-Laws was not entirely satisfac-

* Two deleted sentences transferred from Section 1.

tory since hurried selection of nominating committee members frequently resulted. Therefore, the Committee proposed the following amendment to Chapter IV, Section 2 of the Articles of Incorporation and By-Laws:

That the first two sentences of this section be deleted and the following substitution made:

Prior to the first meeting of the House of Delegates each year, a caucus of the delegates from each councilor district is to be called in each district by the respective councilor to select a delegate to serve as a member of the Committee on Nominations. This Committee is to consist of eleven delegates, one from each councilor district. If necessary, an alternate member may be selected to serve on the Committee on Nominations by the district delegates at any time prior to the first meeting of the House of Delegates. The name of the representative or the alternate thus selected is to be submitted to the office of the State Society prior to the first meeting of the House of Delegates each year.

J. K. MACGREGOR, M.D., *Chairman*
L. V. LARSEN, M.D.
P. A. NIERLING, M.D.
P. D. MCINTOSH, M.D.
E. F. HAGEN, M.D.

The following motion presented by the chairman of the Reference Committee on Articles of Incorporation and By-Laws was unanimously approved by the House of Delegates:

"That the House of Delegates empower the officers of the organization to implement the revisions and carry out the directions as indicated in this report."

THE JUDICIAL COUNCIL

This Judicial Council had three resolutions presented to it, namely, the Calhoun, Pocahontas and Linn County resolutions. It was most difficult to reply specifically to all of the resolutions because of their confused wording.

Calhoun County Resolution. The first part of the resolution, requesting the elimination of the "Red Book" distribution of fees, as indicated on Page 57 as amended, we accept in principle. The second part is nullified by the acceptance of the first part.

Mr. Speaker, I move the acceptance of this part of the report.

Pocahontas County Resolution. We accept the first part of this resolution, namely, that the Iowa State Medical Society establish no fixed formula for the proration of surgical fees.

Mr. Speaker, I move the acceptance of this portion of the report.

We reject the second part concerned with total surgical fees and the third part concerned with individual billing. Our reasons for rejection of these parts will be explained later in this report.

Mr. Speaker, I move the acceptance of this part of the report.

Linn County Resolution. We accept in principle the first part of this report.

Mr. Speaker, I move the acceptance of this part of this report.

We reject the second part of this resolution because it is superfluous.

Mr. Speaker, I move the acceptance of this part of our report.

We reject the third part of this resolution because of its indefinite timing and the all-inclusive wording.

Mr. Speaker, I move the acceptance of this part of this report.

We reject the fourth part of this resolution because proration of fees between the surgeon and assistant was not laid down by the Executive Council of the Iowa State Medical Society and its members in February, 1952.

Mr. Speaker, I move the acceptance of this part of this report.

The Judicial Council recommends that the prorationing of all fees be handled in each locality in accordance with the current acceptable practice. There is an exception in the case of Medicare.

The Council further recommends that Page 4 of the March 21, 1958, Supplement of the Iowa Unit Fee Index be left intact, except for deleting the last five words on the page.

The Council further recommends that Page 5 of the March 21, 1958, Supplement of the Iowa Unit Fee Index be deleted and in its place the following should be inserted:

"Payment for an assistant at a surgical procedure should be as usually handled in the locality where the services are rendered. The patient must be apprized of the manner in which the professional fees are apportioned."

The Judicial Council reminds the members of the Iowa State Medical Society that the welfare of the patient always must be paramount.

Mr. Speaker, I move the acceptance of this part of the report.

Mr. Speaker, I move the acceptance of this report in its entirety.

JOHN H. SUNDERBRUCH, M.D., *Chairman*
RALPH M. DAHLQUIST, M.D.
JAY E. HOULAHAN, M.D.
DEAN H. KING, M.D.
PAUL W. BRECHER, M.D.
BRUCE F. HOWAR, M.D.
S. DALE PORTER, M.D.
CHRISTIAN E. RADCLIFFE, M.D.
GEORGE S. ATKINSON, M.D.
HAROLD J. PEGGS, M.D.
CHARLES H. FLYNN, M.D.

GENERAL PRACTITIONER AWARD

The Reference Committee on the General Practitioner Award met and reviewed the letter from the Van Buren County Medical Society. This letter nominated Dr. Lonnie A. Coffin, of Farmington, for the award of Iowa's outstanding General Practitioner of the Year 1958.

This Committee unanimously approves this selection and requests the House of Delegates to approve the Committee's action.

Your Committee further requests that the AMA Delegates be instructed to describe Dr. Coffin's activities as an outstanding practitioner and an energetic worker for the Iowa State Medical Society. This is to be presented to the AMA for consideration as the outstanding General Practitioner in America.

R. L. WICKS, M.D., *Chairman*
E. E. GAMET, M.D.
G. E. SCHNUG, M.D.

The House of Delegates approved Des Moines as its convention site in 1960.

The President-Elect of the Society, Dr. Walter D. Abbott, addressed the House of Delegates. The text

of his remarks was subsequently published in full in the May, 1958, issue of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY.

Dr. Oscar Alden, delegate from the Montgomery County Medical Society, having been recognized by the Speaker, made the following remarks:

"Mr. Speaker, I would like to make a motion in this connection. I believe we have nominated a practitioner of such caliber that, if we allow the members of the AMA House of Delegates to become acquainted with Dr. Coffin's many contributions in the practice of medicine in all fields, he will not only stand immediately at the top of all nominees but also set a better standard of what a general practitioner in a small town can contribute to the betterment of medicine in the field of general practice. I move that the Executive Council or an appropriate committee of the Society assist in the preparation of Dr. Coffin's supporting material for presentation at the next AMA meeting, when he is nominated for the AMA General Practitioner Award." (Carried)

Dr. R. F. Birge, secretary, presented two motions which were unanimously approved by the House of Delegates. The first was an expression of thanks to Mrs. Sadie Thomas for her outstanding work in reporting the transactions of the House of Delegates. This motion recognized her many years of faithful service.

The second motion was a commendation of Dr. Fred Sternagel for his splendid work during the past year. The motion requested authorization for the Board of Trustees to prepare on behalf of the House of Delegates and officers of the Society a suitable testimonial statement for Dr. Sternagel's permanent personal possession.

The House of Delegates approved a motion introduced by Dr. Harold Peggs, of Creston, delegate from the Union County Medical Society, directing that an intensive study be made on means of remedying the splintering that is taking place in the Iowa State Medical Society and the consequent breaking up of the Annual Meeting into almost innumerable group meetings.

The House of Delegates approved a motion introduced by Dr. D. F. Ward, Dubuque, delegate from the Dubuque County Medical Society, requesting the Iowa State Medical Society to endorse and further the candidacy of Arthur Steindler, of Iowa City, for the Distinguished Service Award of the American Medical Association. This endorsement, in appropriate form, is to be forwarded to the Chairman of the Board of Trustees of the American Medical Association for further consideration.

The House of Delegates approved a motion introduced by Dr. Ralph Moe, of Griswold, delegate from the Cass County Medical Society, commending Dr. C. V. Edwards for his outstanding performance as Speaker of the House of Delegates. On the suggestion of Dr. Moe, the House of Delegates gave Dr. Edwards a rising vote of thanks.

The House of Delegates approved the perennial resolution, introduced by Dr. Oscar Alden, that the House of Delegates instruct the secretary to write a note of thanks to each of the Annual Meeting exhibitors who assist each year in putting on the Iowa State Medical Society Annual Meeting. The House again extended its thanks to Blue Shield for providing the sergeants at arms, Messrs. Wilbur R. Quinn, Kenneth Clark, Morris Bandy and Merle Libby.

The House of Delegates was adjourned by the Speaker at 9:50 a.m.

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IOWA STATE MEDICAL SOCIETY

Officers and Committees, 1958-1959

President.....Walter D. Abbott, Des Moines
President Elect.....John W. Billingsley, Newton
Vice President.....Harold E. Farnsworth, Storm Lake
Secretary.....Richard F. Birge, Des Moines
Treasurer.....N. Boyd Anderson, Des Moines
Speaker of the House of Delegates, Charles V. Edwards, Council Bluffs*
Vice Speaker of the House of Delegates, Harold W. Morgan, Mason City*

COUNCILORS

	Term Expires
First District, Ralph M. Dahlquist, Decorah	1961*
Second District, Jay E. Houlahan, Mason City	1959
Third District, Dean H. King, Spencer	1960
Fourth District, Martin A. Blackstone, Sioux City	1961
Fifth District, Guy E. McFarland, Jr., Ames (appointed as replacement for Bruce F. Howar of Webster City who resigned)	1959
Sixth District, Cecil W. Seibert, Waterloo	1961
Seventh District, Christian E. Radcliffe, Iowa City	1959
Eighth District, John H. Sunderbruch, Davenport	1960
Ninth District, George S. Atkinson, Oskaloosa	1959
Tenth District, Harold J. Peggs, Creston	1960
Eleventh District, Lawrence V. Larsen, Harlan	1961

TRUSTEES

George H. Scanlon, Iowa City, Chairman	1960
Charles H. Flynn, Clarinda	1961
Samuel P. Leinbach, Belmond	1959

DELEGATES TO AMA

	Term Expires
Donovan F. Ward, Dubuque	January 1, 1960
Robert N. Larimer, Sioux City	January 1, 1961*
Francis C. Coleman, Des Moines	January 1, 1961*

ALTERNATE DELEGATES TO AMA

	Term Expires
Frank G. Ober, Burlington	January 1, 1960
Henning W. Mathiasen, Council Bluffs	January 1, 1961*
Callistus H. Stark, Cedar Rapids	January 1, 1961*

EXECUTIVE COUNCIL

Walter D. Abbott, Chairman	Des Moines
John W. Billingsley	Newton
Harold E. Farnsworth	Storm Lake
Richard F. Birge	Des Moines
N. Boyd Anderson	Des Moines
Charles V. Edwards	Council Bluffs
George H. Scanlon	Iowa City
Charles H. Flynn	Clarinda
Samuel P. Leinbach	Belmond
Ralph M. Dahlquist	Decorah
Jay E. Houlahan	Mason City
Dean H. King	Spencer
Martin A. Blackstone	Sioux City
Guy E. McFarland, Jr.	Ames
Cecil W. Seibert	Waterloo
Christian E. Radcliffe	Iowa City
John H. Sunderbruch	Davenport
George S. Atkinson	Oskaloosa
Harold J. Peggs	Creston
Lawrence V. Larsen	Harlan
Donovan F. Ward	Dubuque
Robert N. Larimer	Sioux City
Francis C. Coleman	Des Moines
Thomas D. Throckmorton	Des Moines

THE JOURNAL

Everett M. George ..... Des Moines

* Re-elected at 1958 Annual Meeting

Standing Committees of the Iowa State Medical Society

Committee on Scientific Work

W. D. Abbott, Chairman ..... Des Moines
J. W. Billingsley ..... Newton
R. F. Birge ..... Des Moines
N. B. Anderson ..... Des Moines

Committee on Legislation

N. W. Irving, Jr., Chairman ..... Des Moines
F. C. Coleman, Co-Chairman ..... Des Moines
W. D. Abbott ..... Des Moines
J. W. Billingsley ..... Newton
L. A. Coffin ..... Farmington
J. E. Kelsey ..... Des Moines
J. E. Blumgren ..... Vinton
F. D. Edington ..... Spencer
R. L. Wicks ..... Boone

Medico-Legal Committee

V. C. Robinson, Chairman ..... Des Moines (1959)
J. C. Nolan ..... Corning (1960)
C. H. Flynn ..... Clarinda (1961)
H. H. Allen ..... Ft. Dodge (1961)
J. D. Conner ..... Nevada (1959)

Committee on Articles of Incorporation and By-Laws

P. F. Chesnut, Chairman ..... Winterset
R. H. Kuhl ..... Creston
J. S. McQuiston ..... Cedar Rapids
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G. H. Pester ..... Council Bluffs

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R. C. Gutch ..... Chariton
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Isaac Sternhill ..... Council Bluffs
Fred Sternagel ..... West Des Moines

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T. W. McMeans ..... Davenport
C. A. Nicoll ..... Panora
T. D. Throckmorton ..... Des Moines
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A. B. Phillips ..... Des Moines
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John Parke ..... Cedar Rapids
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J. W. Bushnell ..... Sioux City
A. P. Echternacht ..... Fort Dodge
K. R. Cross ..... Iowa City
L. S. Wentworth ..... Marble Rock
C. D. Gibson ..... Sac City

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E. B. Grossmann ..... Orange City
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F. W. Kapke, Second District ..... Mason City
J. M. Rhodes, Third District ..... Pocahontas
W. M. Krigsten, Fourth District ..... Sioux City
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F. N. Cole, Chairman, Sixth District ..... Iowa Falls
S. E. Ziffren, Seventh District ..... Iowa City
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D. A. Glomset ..... Des Moines
D. D. Harris ..... Marshalltown
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of the

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1958

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as of

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Crain, Mattie M., Deep River (L.M.)
Crandall, Jack S., Marshalltown
Crawford, Robert H., Burlington
Crawford, W. McCulloch. Burlington
Cressler, Frank E., Churdan
Cretzmeyer, Francis X., Emmetsburg (L.M.)
Crew, Arthur E., Marion (L.M.)
Crew, Philip I., Cedar Rapids
Croker, Mary Ann, Manchester
Cromwell, James O., Independence
Cross, Donald L., Boone
Cross, Kenneth R., Iowa City
Crossley, J. Wesley, Roanoke, Virginia
Crow, George B., Burlington
Crowley, Daniel F., Des Moines (L.M.)
Crowley, Daniel F., Jr., Des Moines
Crowley, Paul J., Davenport
Croxdale, Edward L., Villisca
*Crumpton, Robert C., Webster City
Culbertson, Robert A., Des Moines
Cullen, Stuart C., Iowa City
Culp, David A., Iowa City
Cunnick, Paul C., Davenport
Cunningham, Glenn D., Davenport
Cunningham, Melvin B., Norwalk
Curtis, Dean, Chariton
Cusick, George W., Davenport
★Dagle, Charles L., Ardmore, Oklahoma
Dahl, Harry W., Des Moines
Dahlbo, John E., Sutherland
Dahlquist, Ralph M., Decorah
Dalager, Robert D., Ottumwa
Dalbey, Glenn M., Traer
Dangle, Harland C., Cedar Falls
Danielson, May, Clinton
Dannenbring, Forrest G., Fort Dodge
Daut, Richard V., Davenport
Davey, William P., Sioux City
Davidson, Thorald E., Mason City
Dawson, Emerson B., Fort Dodge
Dawson, Robert J., Graettinger
Day, Philip M., Oskaloosa
Deakins, Martin L., Logan
Dean, Abbott M., Council Bluffs
Dean, William F., Osceola (L.M.)
Deaton, Helen J., Iowa City
DeBacker, Leo J., Iowa City
Decker, Charles E., Davenport
Decker, Henry G., Des Moines
Decker, Jay C., Sioux City (L.M.)
DeGowin, Elmer L., Iowa City
Demaree, Chester, Lacona (L.M.)
DeMeulenaere, John C., Grinnell
Dempewolf, Robert D., Bellevue
Dennert, Walter G., Boone
Denser, Clarence H., Jr., Des Moines
Deranleau, Robert F., Perry
DeShaw, Earl H., Monticello
Des Marias, Varina, Grundy Center
Devine, Arthur W., Waterloo
Devine, James S., Whittemore
Dewees, Frank L., Keokuk
Dewey, Jay R., Schaller
DeYoung, Ward A., Glenwood
Diamond, Bernard V., Waterloo
Dick, Fred, Jr., Waterloo
Dickens, James H., Des Moines
Diddy, Keith W., Perry
Dierker, LeRoy J., Fort Madison
Dimsdale, Lewis J., Sioux City
Dingman, Marshall E., Urbana (L.M.)
Ditto, Boyd L., Burlington
Ditto, Winston B., Burlington
Dixon, John B., Mason City
Doane, Grace O., Des Moines (A.M.)
Dodge, Lynn Q., Ames
*Doering, Valentine T., Fort Madison (A.M.)
Dolan, Albert M., Waterloo
Dolan, Thomas R., Monticello
Dolmage, George F., Buffalo Center
Donahue, James C., Centerville
Donahue, James C., Jr., Davenport
Donlin, Robert G., Harlan
Donnelly, Madelene M., Des Moines
Donohue, Edmund S., Sioux City
Doolittle, Russell C., Clearwater, Florida (L.M.)
Doran, John R., Ames
Dorner, Ralph A., Des Moines
Dorsey, Thomas J., Fort Dodge
Dorst, John P., Iowa City
Doss, W. Gordon, Cresco
Doss, W. Norman, Leon
Down, Howard I., Sioux City
Downey, Eugene M., Guttenberg
Downing, Arthur H., Des Moines
Downing, John S., Cedar Rapids
Downing, Leroy M., Cedar Rapids (L.M.)
Downing, Wendell L., LeMars
Downs, Vernon S., Ottumwa
Dressler, John B., Ida Grove
Drew, Edward J., Des Moines
Drier, William C., Waterloo
Driver, Richard W., Waterloo
Drown, Roger E., Fort Dodge
Dubansky, Marvin H., Des Moines
Duewall, Rudolph H., Des Moines
Dulin, Evelyn H., Iowa City
Dulin, John W., Iowa City
Dulin, Tarana J. G., Iowa City (L.M.)
Duling, Raymond J., Sioux City
Dulmes, Abraham H., Klemme
Dunlevy, James H., Fairfield
Dunn, Dale E., Estherville
Dunn, Francis C., Cedar Rapids
Dunn, James, Davenport (L.M.)
Dunn, Robert C., Fort Dodge
Dunner, Ada, Des Moines
Dusdieker, Stanley W., Des Moines
Dutton, Dean A., Van Horne
Dvorak, Joseph E., Sioux City
Dwyer, Bernard B., Clinton
Dwyer, Robert E., Clinton
Dyson, James E., Des Moines
Dyson, Ralph E., Des Moines

Eastburn, Harvey B., Burlington
Eaton, Robert C., Clarion
Ebinger, Edward W., Ottumwa
Echternacht, Arthur P., Fort Dodge
Eckart, Emile P., Fort Dodge
Eckstein, John W., Iowa City
Edelman, David L., Des Moines
Edgerton, Winfield D., Davenport
Edington, Frank D., Spencer
Edwards, Charles C., Des Moines
Edwards, Charles V., Council Bluffs
Edwards, Charles V., Jr., Council Bluffs
Edwards, John F., Clinton
Edwards, Ralph R., Centerville
Egan, Thomas J., Bancroft
Egbert, Daniel S., Fort Dodge
Egermayer, George W., Elliott (L.M.)
Eggleston, Alfred A., Burlington
*Egloff, William C., Mason City
Ehrenhaft, Johann L., Iowa City
Eicher, Charles R., Iowa City
Eisenach, John R., Shenandoah
Ekart, Paul I., Ottumwa
Elkins, Higdon B., Iowa City
Eller, Lancelot W., Kanawha
Eller, William C., Waterloo
Elliott, Olin A., Des Moines
Ellis, Howard G., Des Moines
Ellis, Philip P., Iowa City
Ellison, George M., Clinton
Ellsworth, H. Charles, Cherokee
Ellyson, Charles W., Waterloo (L.M.)
Ellyson, Craig D., Waterloo
Ely, Lawrence O., Des Moines
Emanuel, Dennis G., Ottumwa
Emerson, Donald D., Ottumwa
Emerson, Edward L., Muscatine
Emmons, Marcus B., Clinton
Emmons, Margaret S., Clinton
Emmons, Richard O., Clinton

Eneboe, Edward M., Hawarden
Engelmann, Andrew T., Sioux City
Enggas, John T., Britt
Enna, Melchior D., Dumont
Ennis, Harry H., Manchester (A.M.)
*Ensley, Bruce, Shell Rock (L.M.)
Entringer, Albert J., Dubuque
Entz, F. Harold, Waterloo
Erickson, Ernest D., Sioux City
Ericsson, Martin G., Cedar Falls
Erikson, Roland E., Davenport
Esders, Martin S., DeWitt
Estes, Maurice, Cedar Rapids
Evans, John E., Winterset
Evans, William I., Sac City
Evers, Alvin E., Pella

Faber, Luke A., Dubuque
★Faber, Luke C., Iowa City
Fail, Charles S., Adel
Fangman, Charles A., Coon Rapids
Farago, Denes S., Arnolds Park
Farlow, Charles T., Farnhamville (L.M.)
Farnsworth, Harold E., Storm Lake
Farrage, Edward R., Council Bluffs
Faust, John H., Manson
Fee, Charles H., Denison
Fee, Knight E., Toledo
Feightner, Robert L., Fort Madison
Feldick, Harley G., Buffalo Center
Fellows, Joseph G., Ames
Felter, Allan G., Van Meter
Fenlon, Charles E., Mason City
Fenton, Charles D., Bloomfield
Fenton, Robert L., Centerville
Ferguson, John W., Newton
Ferguson, Paul, Lake City
Ferlic, Rudolph J., Carroll
Fesenmeyer, Charles R., Davenport
Fickel, Jack D., Red Oak
Field, Charles A., Cresco
Field, Grace E. W., Juneau, Alaska
Fiesler, Walter R., Fort Dodge
Fieselmann, George F., Spencer
Fillenwarth, Floyd H., Charles City
Fisch, Roman J., LeMars
Fischer, Harry W., Iowa City
Fisher, June M., Iowa City
Fisher, William A., Creston
Fishman, Harlow J., Cherokee
Fisk, Charlotte, Des Moines
Fitzgerald, Joseph D., Sloan
Flannery, Francis E., Cedar Rapids
Flater, Norman C., Floyd
Flatt, Adrian E., Iowa City
Fleming, Edward F., Rockwell
Flickinger, Roger R., Mason City
Flocks, Rubin H., Iowa City
Floersch, Eugene B., Council Bluffs
Floyd, Mark L., Iowa City
Flynn, Charles H., Clarinda
Flynn, Gordon A., Davenport
Flynn, James R., Cedar Rapids
Foley, Robert J., Davenport
Foley, Walter E., Davenport
Foley, Walter E., Jr., Davenport
Fomon, Samuel J., Iowa City
Ford, James C., Los Angeles, California
Fordyce, Frank W., Des Moines
Forsythe, Dorothy C., Newton
Forsythe, Frank E., Newton
Foss, John F., Burlington
Foss, Robert H., Des Moines
Foster, Morgan J., Cedar Rapids
Foster, Wayne J., Cedar Rapids
Foster, Warren H., Clinton
Foulk, Frank E., Backus, Minn. (L.M.)
Fowler, Willis M., Iowa City
Fox, Charles I., Pella (L.M.)
Fox, Ray A., Charles City
Fox, Stephan, Ottumwa
Franchere, Chetwynd M., Mason City
Franey, William E., Cedar Rapids
Frank, Louis J., Sioux City
Frank, Owen L., Maquoketa
Fraser, James B., Des Moines
Fraser, John H., Monticello
Frech, Raymond F., Newton
Freed, David A., West Union
French, Royal F., Marshalltown
French, Valiant D., Cedar Falls
French, Vera V., Bettendorf
Frenkel, Hans S., Clarinda
Friday, Walter C., Burlington
*Fridell, Glen W., Slater
Frink, Lyle F., Spencer
Frink, Lynn E., Reinbeck
Fritchen, Arthur F., Decorah
From, Paul, Des Moines
Frost, Loraine H., Iowa City
Fry, Gerald A., Vinton
Fuerste, Frederick, Jr., Dubuque
Fuller, Lyle R., Garner
*Fullerton, Oscar L., Redding (L.M.)
Funk, David C., Iowa City
Furumoto, Kiyoshi, Keosauqua
Gacusana, Jose M., Akron
Galinsky, Leon J., Des Moines
Gallagher, John P., Oelwein
Gamet, Elmo E., Lamoni
Gangeness, Leonard G., Des Moines
Gann, Edward R., Sigourney
Gannon, James, Laurens
Gantz, A. Jay, Greenfield
Ganzhorn, Harold L., Mapleton
Gardner, Harold O., Waterloo
Gardner, John R., Lisbon (L.M.)
Garland, John C., Marshalltown
Garred, John L., Whiting
Garred, William P., Onawa
Garvy, Andrew C., Iowa City
Gauger, John W., Early
Gaukel, Leo A., Onawa
Gault, James B., Creston
Gearhart, George W., Springville (L.M.)
Gee, Kenneth J., Shenandoah
Gelfand, Arthur B., Sioux City
Gelman, Webster B., Iowa City
George, Everett M., Des Moines
George, Louis A., Remsen
Gerard, Russell S., II, Waterloo
Gerken, James F., Waterloo
Gernsey, Merritt N., Long Beach, Calif. (L.M.)
Gerstman, Herbert, Marion
Gessford, Howard H., George
Getty, Everett B., Primghar
Gibbon, William H., Sioux City
Gibbs, George M., Burlington
Gibson, Chelsea D., Sac City
Gibson, Douglas N., Des Moines
Gibson, Paul E., Des Moines
Gibson, Preston E., Davenport
Giegerich, Walter F., Atlantic
Gildea, Dorothy J., Davenport
Giles, Francis E., Fort Dodge
Giles, W. Clark, Council Bluffs
Gilfillan, Clarence D. N., Bloomfield
Gilfillan, Earl E., Bloomfield
Gilfillan, Edwin O., Bloomfield
Gilfillan, Homer J., Jr., Bloomfield
Gillett, Francis A., Oskaloosa (L.M.)
Gillett, R. Giles, Sigourney
Gillies, Carl L., Iowa City
Gillmor, Benjamin F., Red Oak (L.M.)
Gingles, Earl E., Onawa
Ginzberg, Fanny T., Cherokee
Gittins, Thomas R., Sioux City
Gittler, Ludwig, Fairfield
Gius, John A., Iowa City
*Givens, H. Frank, West Bend (L.M.)
Givler, Robert L., Iowa City
Glenn, David H., Eldora
Glesne, Otto N., Fort Dodge
Glick, Julius, Clinton
Glissman, Jean B., Des Moines
Glomset, Daniel A., Des Moines
Glomset, Daniel J., Des Moines (L.M.)
Goad, Robley R., Muscatine
Godbey, Maunis E., Iowa City
Goddard, Chester R., Iowa City
Goddard, William B., Iowa City
Goebel, Clarence J., Sioux City
Goebel, Kenneth E., Council Bluffs
Goen, Edwin J., Charles City
Goenne, Richard E., Davenport
Goenne, William C., Sr., Davenport
Goggin, John G., Ossian
Goldberg, Louis, Des Moines
Goldman, Bernard R., Davenport
Goodenow, Sidney B., Colo
Goodman, Lawrence O., Marshalltown
Goplerud, Clifford P., Iowa City
Gordon, Arnold M., Des Moines
Gorrell, Ralph L., Clarion
★Goslin, Fred B., Biloxi, Mississippi
Gottsch, Edwin J., Shenandoah
Gould, George R., Conrad (L.M.)
Gower, Walter E., Fort Dodge
Graham, Charles W., Ottumwa
Graham, James W., Sioux City
Grandinetti, Arthur F., Oelwein
Grant, John G., Ames
Grau, Amandus H., Denison
Graves, John P., Dubuque
Gray, Gordon W., Davenport
Gray, John F., Melcher (L.M.)
Gray, Ralph E., Eldora
★Gray, Lawrence R., Pensacola, Florida
Greco, Louis R., Jr., Boone
Green, David, Iowa City
Green, Don C., Des Moines
Green, John W., Jr., Des Moines
Greenblatt, Jerald, Cedar Rapids
Greene, Leonard H., Des Moines
Greenhill, Solomon, Des Moines
Greenleaf, John S., Iowa City
Greenwald, Charles M., Iowa City
Greteman, Theodore J., Dubuque
Griesy, Carl V., Rock Valley
Griffin, Charles C., Dyersville
Griffin, Robert E., Sheldon
Griffith, Wylie H., Clinton
Griffith, William O., Council Bluffs
Grimmer, George T., Charles City
Groben, Elmer S., Columbus Junction
Grossman, Milton D., Sioux City
Grossman, Raymond S., Marshalltown
Grossmann, Edward B., Orange City
Grubb, Merrill W., Galva
Grundberg, Gerhard, Dows
Guggenheim, Paul, Council Bluffs
Gugle, Lloyd J., Ottumwa
Gurau, Henry H., Des Moines
Gustafson, John E., Des Moines
Gutch, Roy C., Chariton
Gutch, Thomas E., Albia (L.M.)
Gutenkauf, Charles H., Des Moines

Hach, Felix T., Ankeny
Hagen, Edward F., Decorah
Haggar, David K., Hawarden
Haines, Diedrich J., Des Moines
Hake, Dexter H., Knoxville
Hale, Albert E., Mason City
Hall, Forest F., Dunedin, Florida (A.M.)
Hall, Bonnybel A., Maynard
Hall, Cluley C., Maynard
Hallam, F. Tulley, Des Moines
Hallberg, Harold C., Oelwein
Halpin, Lawrence J., Cedar Rapids
Hamilton, Ben C., Jr., Jefferson
Hamilton, Cecil V., Ames
Hamilton, Henry E., Iowa City
Hamilton, William K., Iowa City
Hancock, John J., Iowa City
Hansell, William W., Des Moines
Hansen, Fred A., Red Oak
Hansen, Niels M., Des Moines
Hansen, Robert R., Marshalltown (L.M.)
Hansen, Russell R., Storm Lake
Hanson, Carl A., Waterloo
Hanson, Henry M., Waverly
Hanson, Walter N., Mason City
Hanssmann, Irving J., Council Bluffs
Hardin, John F., Bedford
Hardin, Robert C., Iowa City
Harding, Dale A., Eagle Grove
Hardwig, Oswald C., Waverly
Hardwig, Robert P., Waverly
Harken, Conreid R., Osceola (L.M.)
Harkness, Gordon F., Davenport (L.M.)
Harman, Dean W., Glenwood
Harms, George E., Norway
*Harnagel, Edward J., Des Moines
Harper, George E., Fort Madison
Harper, Harry D., Fort Madison
Harper, William H., Jr., Keokuk
Harrington, Arlan F., Cedar Rapids
Harrington, Louis E., Danbury
Harrington, Raymond J., Sioux City
Harris, D. Dale, Marshalltown
Harris, Ray R., Dubuque (L.M.)
Hart, Paul V., Des Moines
Hartley, Byron D., Mount Pleasant
Hartman, Frank T., Waterloo (L.M.)
Hartman, Howard J., Waterloo
Hartung, Walter, Davenport
Harvey, Glen W., Cedar Rapids
Harwood, Arthur M., Waverly
Hastings, Richard A., Ottumwa
Hatfield, Mary A., Des Moines
Haufe, W. David, Bloomfield
Hausheer, Herman J., Mount Ayr
Havlik, Al J., Tama
Hawkins, Charles P., Clarion
Hayden, Milford D., Marcus
Hayes, William P., Cedar Rapids
Hayne, Robert A., Des Moines
Hayne, Willard W., Des Moines
Hazlet, Kenneth K., Dubuque
Heady, Conda C. C., Bloomfield (L.M.)
*Heald, Clarence L., Sigourney (L.M.)
Hecker, John T., Cedar Rapids
Heeren, Ralph H., Des Moines
Heffernan, Chauncey E., Sioux City
Hegg, Lester R., Rock Valley
Hegstrom, George J., Ames
Heilman, Elwood H., Ida Grove
Heilman, Robert D., Sioux City
Heimann, Verne R., Sioux City
Heise, Carl A., Jr., Jewell
Heise, Harris R., Marshalltown
Heise, Robert H., Story City
Heitzman, Paul O., Cedar Rapids
Helling, Harry B., Fort Madison
Helseth, Carleton T., Des Moines
Helt, Vernon G., Moville

Henderson, Lauren J., Cedar Falls
Henderson, Walker B., Oelwein
Hendricks, Atlee B., Davenport
Hendrickson, Alvin H., Sioux City
Henkin, John H., Sioux City
Henn, Samuel C., Cedar Falls
Hennes, Raphael J., Oxford
Hennessey, John M., Manilla
Hennessy, Felix A., Calmar (L.M.)
Hennessy, J. Donald, Council Bluffs
Henningsen, Artemus B., Clinton
Henry, Clyde A., Farson (L.M.)
Henry, Hiram B., Pasadena, California (A.M.)
Henstorf, Harold R., Shenandoah
Herman, John C., Boone
Herny, Peter M., Prairie City
Herrick, Walter E., Ottumwa
Herrmann, Christian H., Jr., Amana
Hersey, Nelson L., Independence
Hess, John, Jr., Des Moines
Heuermann, Dorothy J., Coulter
Heusinkveld, Henry J., Clinton
Hickenlooper, Carl B., Winterset (A.M.)
Hickey, Robert C., Iowa City
Hickman, Charles S., Centerville
Hicks, Wayland K., Sioux City
Hildebrand, Howard H., Ames
Hill, Don E., Clinton
Hill, James W., Mount Ayr (L.M.)
Hill, Julia Ford, Santa Barbara, Calif. (L.M.)
Hill, Lee F., Des Moines
Hill, Richard W., Lake Mills
Hines, Ralph E., Des Moines
★Hintz, D. Charles, Vista, Calif.
Hirleman, Hal R., Cedar Rapids
Hirsch, Harry N., Sioux City
Hirst, Donald V., Council Bluffs
Hodges, Robert E., Iowa City
Hoffman, Paul M., Tipton (L.M.)
Hoffmann, Robert W., Des Moines
Hofmann, William P., Davenport
Hogenson, George B., Eagle Grove
Hollander, Werner M., Davenport
Hollis, Edward L., Marengo (L.M.)
Holtey, Joseph W., Ossian
Hombach, Walter P., Council Bluffs
Hommel, Placido R. V., Elkader
Honke, Edward M., Sioux City
Hooley, John S., Sigourney
Hooper, Lester E., Indianola (L.M.)
Hopkins, David H., Des Moines (A.M.)
Hornaday, William R., Des Moines
Hornberger, John R., Manning
Horst, Arthur W., Sioux City
Hosford, Horace F., Burlington
Hospodarsky, Leonard J., Des Moines
Hostetter, John I., Des Moines
Houghton, Earl J., Bettendorf
Houlahan, Jay E., Mason City
Houlihan, Francis W., Ackley
Houser, Cass T., Cedar Rapids (L.M.)
Housholder, Harold A., Winthrop (L.M.)
Howar, Bruce F., Webster City
Howard, Dwayne E., Sioux City
Howard, Lloyd G., Council Bluffs
Howe, Gerald W., Iowa City
Howell, David A., Dubuque
Howell, Elias B., Ottumwa (L.M.)
Hoyt, John L., Creston
Hruska, Glen J., Belmond
Huber, Robert A., Charter Oak
Hubiak, John, Odebolt
Hudek, Joseph W., Garnavillo (L.M.)
Huey, John R., Cedar Rapids
Huffman, William C., Iowa City
Hughes, Parker K., Des Moines
Hughes, Robert O., Ottumwa
Hull, Gene I., Des Moines
Hulse, Roy A., Burlington
Hunt, Van W., Mason City
Hunting, Ralph D., Cedar Rapids
Huntley, Charles C., Avoca
Hurevitz, Hyman M., Davenport
Huston, Daniel F., Burlington
Huston, John, Jr., Cedar Rapids
Huston, K. Garth, Des Moines
Huston, Marshall D., Cedar Falls
Huston, Paul E., Iowa City
Hyatt, Charles N., Corydon
Hyde, John R., Iowa City

Ihle, Charles W., Cleghorn (L.M.)
Ingham, Paul G., Mapleton
Ingle, Newell G., Cedar Rapids
Ingraham, David R., Sewal
Ireland, William W., Ottumwa
Irish, Thomas J., Forest City
Irving, Noble W., Jr., Des Moines
Isenberg, Bertice A., Lohrville (A.M.)

Jack, Darwin B., Oelwein
Jackson, James M., Jefferson (L.M.)
Jackson, James S., Mount Pleasant
Jacobi, Heinz S., Des Moines
Jacobs, Carl A., Sioux City
Jacobs, Edward L., Conrad
Jacoby, James A., Burlington
Jacques, Lewis H., Iowa City
Jaenicke, Kurt, Clinton (L.M.)
Jaggard, Robert S., Oelwein
James, Audra D., Des Moines (A.M.)
James, David W., Des Moines
James, Lora D., Fairfield (L.M.)
James, Peter E., Audubon (L.M.)
Janse, Phillip V., Algona (L.M.)
January, Lewis E., Iowa City
Jaquis, John R., Reinbeck
Jardine, George A., New Virginia (A.M.)
Jarvis, Harry D., Chariton (L.M.)
Jaskunas, Stanley R., Bloomfield
Jauch, Karl E., LaPorte City
Jeffries, James H., Waterloo
Jeffries, Milo E., Marshalltown
Jeffries, Roy R., Waukon
Jenkins, George A., Albia (L.M.)
Jenkins, George D., Burlington
Jenkins, Hanley F., Des Moines
Jenkinson, Harry R., Iowa City
Jenks, Alonzo L., Des Moines
Jensen, Kenneth V., Clarinda
Jensen, LeRoy E., Audubon
Jensen, Ralph, Ames
Jerdee, Ingebrecht C., Clermont
Jerome, Peter, Davenport
Jirsa, Harold O., Cedar Rapids
Johann, Albert E., Des Moines (A.M.)
Johnson, Aaron Q., Sioux City
Johnson, Christine Adrian, Iowa City
Johnson, Clarence A., Coon Rapids
Johnson, G. Raymond, Ottumwa
Johnson, Harvey A., Atlantic
Johnson, Merton A., Nevada
Johnson, Norman M., Clarinda
Johnson, Richard M., Denison
Johnson, Robert J., Iowa Falls
Johnson, Robert M., Des Moines
Johnson, Robert W., Iowa City
Johnson, Victor P., Des Moines
Johnston, C. Harlan, Des Moines
*Johnston, Florence D., Cedar Rapids
Johnston, George B., Estherville
Johnston, Harry L., Ames
Johnston, Helen, Des Moines
Johnston, James P., Des Moines
Johnston, Wayne A., Dubuque
Jones, Cecil C., Des Moines
Jones, Charles L., Gilmore City (L.M.)
Jones, Clare C., Spencer
Jones, G. William, Des Moines
Jones, Harold W., Sioux City
Jones, Harry J., Cedar Rapids (L.M.)
Jones, Maynard L., Colfax
Jongewaard, Albert J., Jefferson
Jongewaard, Jean, Jefferson
Jongewaard, Robert E., Scranton
Joranson, Robert E., Council Bluffs
Jordan, John W., Maquoketa
Jowett, John R., Clinton
Joyce, George T., Mason City
Joynt, Albert J., Waterloo
Joynt, Michael F., Marcus
Joynt, Robert J., Iowa City
Judiesch, Kenneth J., Iowa City
Juel, Einer M., Atlantic

Kaack, Harry F., Jr., Clinton
Kadesky, Melvin C., Iowa City
Kaelber, William W., Iowa City
Kahler, Hugo V., Reinbeck (L.M.)
Kane, Thomas E., Boone
Kanealy, John F., Cedar Rapids
Kapke, Franklin W., Mason City
Kaplan, David D., Sioux City
Kaplan, Robert M., Davenport
Kasiske, Walter B., Keokuk
Kassmeyer, John C., Dubuque
Kast, Donald H., Des Moines
Katzmann, Frederick S., Des Moines
Keane, Kenneth M., Sioux City
Keech, Roy K., Cedar Rapids (L.M.)
Keeney, George H., Mallard (L.M.)
Keettel, William C., Iowa City
Kehoe, Joseph L., Davenport
★Keil, Philip G., Lackland Air Force Base, Texas
Keiser, Orris S., Muscatine
Keith, Charles W., Strawberry Point (L.M.)
Keith, John J., Marion
Kelberg, Melvin R., Sioux City
Keller, Erwin F., Davenport
Keller, John T., Iowa City
Kelley, Edmund J., Des Moines
Kelley, John H., Des Moines
Kelley, Newell R., Des Moines
Kelly, Anthony H., Sioux City
Kelly, Dennis H., Des Moines (A.M.)
Kelly, Dennis H., Jr., Des Moines
Kelly, John F., Sioux City
★Kelly, John F., New York, New York
Kelly, Thomas W., Des Moines
Kelly, William J., Dubuque
Kelsey, James E., Des Moines
Kemp, Robert R., Keokuk
Kenefick, John N., Algona
Kennedy, Edwin D., Mason City
Kennedy, Elizabeth Smith, Oelwein (L.M.)
Kent, Ann Kiel, Iowa City
Keohen, Gerald F., Dubuque
Kepros, Peter F., Cresco
Kern, George A., Des Moines
Kern, Lester C., Waverly (L.M.)
Kerr, W. Hawley, Hamburg
Kershner, Frank O., Clinton
Kersten, Herbert H., Fort Dodge
Kersten, John R., Fort Dodge
Kersten, Paul M., Fort Dodge
*Kerwick, Joseph M., New Hampton
Kestel, John L., Waterloo
Kettelkamp, Enoch G., Monona
★Kettelkamp, Richard G., Monona
Keyser, Earl L., Marshalltown
Keyser, Ralph E., Marshalltown (L.M.)
Kieck, Ernest G., Etowah, North Carolina (A.M.)
Kienzle, William K., Iowa City
Kiesau, Milton F., Postville
Kiesling, Harry F., Lehigh
Kilgore, Ben F., Des Moines
Kilness, Arthur W., Eldon
Kimball, John E., West Liberty
Kimberly, Lester W., Davenport
King, Dean H., Spencer
King, Ross C., Clinton
Kingsbury, Charles L., Keokuk
Kingsbury, Kenneth R., Ottumwa
Kirch, Walter A., Des Moines
Kirkendall, Walter M., Iowa City
Kirkham, Lindsay J., Mason City
Klein, John L., Jr., Muscatine
Klein, Robert F., Muscatine
Kleinberg, Henry E., Des Moines
Kline, Samuel, Sioux City (L.M.)
Klocksiem, Harold L., Des Moines
Klocksiem, Roy G., Rockwell City
Klok, George J., Council Bluffs
Kluever, Herman C., Fort Dodge
Knight, Benjamin L., Cedar Rapids
Knight, Edson C., Marshalltown
Knight, Russell A., Rockford
Knipfer, Robert L., Jesup
Knosp, Alton, Paton
Knosp, Norman C., Belle Plaine
Knott, Peirce, Sioux City
*Knouf, Clare E., Iowa City
Knowles, Fred L., Fort Dodge
Knox, James M., Cedar Rapids (L.M.)
Knox, Robert M., Des Moines
Knutsen, Arne, Sioux City
Koch, John S., Madison, Wisconsin
Koelling, Lloyd H., Newton
Kohrs, Edward, Davenport
Koons, Claude H., Des Moines
Koontz, Lyle W., Vinton
Kopecky, Edward F., Cedar Rapids
Kopsa, Walter J., Tipton
Koptik, George, Jr., Hines, Illinois
Korfmacher, Edwin S., Grinnell
Kornder, Louis H., Davenport
Korns, Horace M., Iowa City
Kos, Clair M., Iowa City
Koser, Donald C., Cherokee
Krettek, John E., Council Bluffs
Krigsten, Joe M., Sioux City
Krigsten, William M., Sioux City
Kroack, Kalman J., Buffalo Center
Kruckenberg, William G., Cedar Rapids
Krueger, Norman L., Mason City
Kruml, Joseph G., Council Bluffs
Kruse, Otto E., Tipton
Kruse, Rolf F., Waterloo
Kruse, Rufus H., Marshalltown
Kuehn, Willard G., Clarinda
Kuhl, Augustus B., Jr., Davenport
Kuhl, Robert H., Creston
Kuhn, Mark A. R., Waterloo
Kuker, Leo H., Carroll
Kurtz, Cecilia M., Cedar Rapids
Kyer, Donald L., Dubuque
Kyle, William S., Washington (L.M.)

Lagen, Mansfield S., Dubuque
Lagoni, Ralph P., Eldridge
Lamb, Harry H., Davenport
Lambrecht, Paul B., Des Moines
Landry, Gerard R. F., Council Bluffs
Langworthy, Henry G., Dubuque (L.M.)
Lannon, James W., Mason City

LaPorte, Paul A., Wellsburg
Lardner, Decker, Iowa City
Larimer, Robert C., Sioux City
Larimer, Robert N., Sioux City
Larsen, Elmer A., Centerville
Larsen, Frank S., Fort Dodge
Larsen, Harold T., Fort Dodge
Larsen, Lawrence V., Harlan
Larson, Andrew G., Dickens (L.M.)
Larson, Carroll B., Iowa City
Larson, Erling, Jr., Davenport
Larson, Gerald E., Elk Horn
Larson, Lester E., Decorah
Larson, Marvin O., Hawarden
LaRue, Jack L., Anita
Latchem, Charles W., Des Moines
Latimer, Milton J., Burlington
Laube, Paul J., Dubuque
Laughlin, Ralph M., Cedar Rapids
Lauvsted, Edward E., Osceola
Lavender, John G., George
Lawler, Matthew P., Jr., Des Moines
Lawlor, Jeremiah F., Cherokee
Layton, Jack M., Iowa City
Leander, Richard B., Council Bluffs
Lechelt, Ronald K., Des Moines
Lederman, Joseph, Oskaloosa
Ledogar, Joseph A., Webster City
Lee, Richard H., Dubuque
Lee, Robert W., Fort Dodge
Lee, Wayne R., Burlington
Leehey, Paul J., Independence
Leffert, Frank B., Centerville
Lehman, Emery W., Bluffton, Indiana (L.M.)
Lehr, Sylvan M., Cedar Rapids
*Leighton, Lewis L., Fort Dodge
Leinbach, Samuel P., Belmond
Leinfelder, Placidus J., Iowa City
Leiter, Herbert C., Sioux City
★LeJeune, Francis E., Biloxi, Mississippi
Lekwa, Alfred H., Story City
Lemke, Betty A. T., Des Moines
Lemon, Kenneth M., Oskaloosa
Lenzmeier, Albert J., Davenport
Leonard, Thurman K., Madrid
LePoidevin, Jean S., Waterloo
Lesiak, John J., Titonka
Levy, James W., Sioux City
Lewis, Faye C., Webster City
Lewis, William B., Webster City
Liebendorfer, Richard A., Iowa City
Lierle, Dean M., Iowa City
Lierman, Clifford E., Lake View
Liken, John A., Creston
Limbert, Edwin M., Council Bluffs
Limburg, John I., Jr., Jefferson
Lindell, Sherman E., LeMars
Linder, Enfred E., Ogden
Lindholm, Claire V., Armstrong
Lindholm, Hugo A., Armstrong
Lindley, Ellsworth L., Cedar Rapids
Linge, Scott, Fayette
Linthacum, Robert W., Dysart
Liska, Edward J., Ute
Lister, Eugene E., Dallas Center
Lister, Kenneth E., Ottumwa
Lloyd, John M., Washington
Locher, Robert C., Cedar Rapids
Loeck, John F., Independence
Loes, Anthony M., Dubuque (L.M.)
Lohman, Frederick H., Waterloo
Lohmann, Carl J., Burlington
Lohnes, John H., Iowa City
Lohr, Phillips E., Churdan
Long, Draper L., Mason City
Longworth, Wallace H., Boone
Loomis, Frederic G., Waterloo
Lorfeld, Gerhard W., Davenport
Losasso, David A., Davenport
Losh, Clifford W., Des Moines (L.M.)
Losh, Clifford W., Jr., Des Moines
Lovejoy, E. Parish, Des Moines
Loving, Luther W., Estherville
Lowry, Charles F., Council Bluffs
Loxterkamp, Edward O., Rolfe
Ludwig, Clarence J., Waterloo
Lueck, Arthur G., Des Moines
Luehrsmann, Bernard C., Dyersville
Luke, Edward, Coin (L.M.)
Lulu, Donald J., Des Moines
Luse, Ralph F., Clinton
Lutton, John D., Sioux City
Lynn, Clarence E., Dubuque (A.M.)
Lyons, Mary Louise, Des Moines

Macgregor, John K., Mason City
MacLeod, Hugh G., Greene
MacQueen, John C., Iowa City
McAllister, William G., Manly
McBride, Robert H., Sioux City
McCaffrey, Eugene H., Des Moines
McCall, John H., Allerton
McCarthy, Frank D., Sioux City
McClean, Earl D., Des Moines (L.M.)
McClellan, John W., Onawa
McClure, Gail A., Ames
McClurg, Frank H., Fairfield
McConkie, Edwin B., Cedar Rapids
McConnell, Robert W., Davenport
McCool, Robert F., Clarion
McCormack, William C., Ames
McCoy, Harold J., Des Moines
McCoy, John T., Cedar Falls
McCrary, W. Ashton, Lake City
McCreedy, Murry L., Washington
McCreight, George C., Carmel Valley, Calif. (A.M.)
McCuistion, Harry M., Sioux City
McDonald, Don J., Cedar Rapids
McDowall, Gilbert T., Gladbrook (L.M.)
McEleney, Donald A., Cedar Rapids
McFadden, F. Ross, Davenport
McFarland, Guy E., Ames
McFarland, Guy E., Jr., Ames
McFarland, Julian E., Ames
McFarlane, Donald J., Dubuque
McFarlane, John A., Sioux City
McGahey, William B., Webster City
McGarvey, Cornelius J., Des Moines
McGeehon, Robert C., Indianola
McGilvra, Arthur L., Sioux Center
McGinnis, George C., Fort Madison
McGrane, Merle J., New Hampton
McGuire, Kenneth L., Keota
McHugh, Charles P., Sioux City (L.M.)
McIlece, Raymond C., Fort Madison
McIntosh, Philip D., Ottumwa
McIntyre, Caryl C., Waterloo
McKay, Kenneth H., Muscatine
McKay, Richard V., Jr., Dubuque
McKean, Frank F., Allison
McKitterick, John C., Burlington
McLaughlin, Philip A., Coralville
McMahon, Arthur E., Jr., Mason City
McMahon, Thomas, Garner (L.M.)
McMeans, Thomas W., Davenport
McMillan, George J., Fort Madison
McMillan, James T., III, Des Moines
McMurray, Edward A., Newton
McMurray, Harry N., Burlington
McNamara, Robert J., Dubuque
McNamee, Jesse H., Des Moines
McQuiston, J. Stuart, Cedar Rapids
McTaggart, William B., Fort Dodge
McVay, Melvin J., Lake City
Macy, William W., Iowa City
Magaret, Ernest C., Glenwood
Magee, Emery E., Waterloo
Mahoney, James D., Council Bluffs
Mailliard, Robert F., Storm Lake
Maixner, Reynold R., Ottumwa
Maixner, William D., Ottumwa
Maland, Donald O., Cresco
Malek, John C., Waterloo
Maltry, Emile, Jr., Fort Dodge
Manderscheid, Robert A., Boone
Mangan, J. Thomas, Forest City
Manning, Ephraim L., Davenport
Manoles, Ellias N., Des Moines
Manthey, Charles E., Waterloo
Manthey, Richard G., Waterloo
Maplethorpe, Charles W., Toledo
Maplethorpe, Charles W., Jr., Toledo
Marble, Edwin J., Marshalltown
Marble, Willard P., Marshalltown
Margules, Maurice P., Council Bluffs
Margulies, Harold, Des Moines
Marinos, Harry G., Mason City
Maris, Cornelius, Sanborn
Mark, Edward M., Clarksville
Mark, Milton S., Des Moines
Marker, John I., Davenport
Markham, William S., Harlan
Marme, George W., DeWitt
Marquis, Fred M., Waterloo
Marquis, George S., Des Moines
Marriott, Charles M., Sioux City
Marsh, Frederick E., Council Bluffs
Marsh, Frederick E., Jr., Council Bluffs
Marshall, Jean A., Iowa City
Martin, James W., Holstein
Martin, Josef R., Carroll
Martin, Lee R., Council Bluffs
Martin, Ronald F., Sioux City
Martin, Sidney D., Carroll (L.M.)
Martini, Henry F., Council Bluffs
Mason, Edward E., Iowa City
Mason, Robert P., Des Moines
Mast, Truman M., Washington
Mater, Dwight A., Knoxville
*Matheson, John H., Des Moines
Mathiasen, Emmett B., Council Bluffs
Mathiasen, Henning W., Council Bluffs
Mathiasen, John W., Council Bluffs
Matthey, Carl H., Davenport
Matthey, Walter A., Davenport
Mattice, Lloyd H., Sheldon
Mattice, Roger J., Sioux Rapids
Mauritz, Emory L., Des Moines
Maxwell, Charles T., Sioux City
Maxwell, John R., Iowa City
May, George A., Forest Grove, Oregon (A.M.)
Mayner, Frank A., Montrose
Mazur, Theodore T., Burlington
Meany, Thomas J., West Bend
Meekin, Patrick C., West Bend
Meffert, Clyde B., Cedar Rapids
Megorden, William H., Mount Pleasant
Mehrl, William J., Manchester
Melampy, C. Nelson, Ottumwa
Melgaard, Robert T., Dubuque
Mellen, Robert G., Clinton
Merillat, Herbert C., Des Moines
*Merkel, Arthur E., Des Moines (L.M.)
Merkel, Byron M., Des Moines
Merritt, Arthur M., Des Moines (L.M.)
Merritt, F. Benjamin, Dubuque
Merritt, James O., Des Moines
Merselis, Harold K., Audubon
Mershon, Clinton E., Iowa City (L.M.)
Meservey, Maynard A., Jr., Des Moines
Meyer, Albert J., Iowa City
Meyer, Alfred K., Clinton
Meyer, Robert J., Wellsburg
Meyers, Frank W., Dubuque (L.M.)
Meyers, Paul T., Bloomfield
Meyers, Robert P., Ottumwa
Michaelson, Beryl F., Dakota City
Michaelson, Don, Sac City
Michaelson, Manly, Lytton
Michelfelder, Theodore J., Fort Dodge
Michener, Robert B., Iowa City
Middleton, William H., Cedar Rapids
Mikelson, Clarence J., Waterloo
Miller, Chester I., Iowa City
Miller, Donald F., Williamsburg
Miller, Enos D., Wellman
Miller, Garfield, Calmar
Miller, Howard L., Cedar Rapids
Miller, Jay R., Wellman
Miller, Keith E., Agency
Miller, Lawrence A., North English
Miller, Lawrence A., II, North English
Miller, Richard L., Waterloo
Miller, Robert C., Waterloo
Miller, Temple M., Muscatine
Miller, Wilbur R., Arcadia, Calif.
Milroy, Thomas W., Des Moines
Miltner, Leo J., Davenport
Minassian, Thaddeus A., Des Moines (L.M.)
Miner, James B., Charles City
Mirick, Donald F., Clinton
Mitchell, Claire H., Cincinnati (L.M.)
Mitchell, Duane E., Mount Ayr
Mitchell, Richard C., Waterloo
Moberly, John W., Dubuque
Mochal, John L., Independence
Moe, Ralph H., Griswold
Moeller, Jay A., Dubuque
Moen, Stanley T., Cedar Rapids
Moermond, James O., Buffalo Center
Moershel, Henry G., Homestead
Moershel, William J., Cedar Rapids
Moessner, Harold, Amana
Moles, Marvin R., Newton
Monnig, Philip J., Sioux City
★Montgomery, Albert E., Phoenixville, Pa.
Montgomery, George E., Ames
Montgomery, Guy E., Washington
Montz, Fred, Lowden
Moon, Barclay J., Cedar Rapids
Moon, Merritt D., Sacramento, Calif.
Mooney, James C., Des Moines
Moore, Carlyle C., Emmetsburg
Moore, Edson E., Fort Dodge
Moore, Jesse C., Eldon (L.M.)
Moore, Pauline V., Iowa City
Moore, Richard M., Des Moines
Moorehead, Harold B., Underwood
Mordaunt, Richard H., Nevada
Morgan, Dale D., Marion
Morgan, Francis W., Ottumwa
Morgan, Harold W., Mason City
Morgan, Jack N., Fairfield
Morgan, Paul W., Mason City
Morgan, Rex L., Sioux City
Morganthaler, Otis P., Templeton (L.M.)
Moriarty, Darwin L., Council Bluffs
Morrison, John R., Glidden
Morrison, John W., Alta (L.M.)
Morrison, Robert E., Waterloo
Morrison, Roland B., Carroll

Morrissey, George E., Davenport
Morrissey, William J., Des Moines
Mosher, Martin L., Jr., Iowa City
*Mott, William H., Farmington (L.M.)
Motto, Edwin A., Davenport
Mountain, George E., Des Moines
Moyers, Jack, Iowa City
Mugan, Robert C., Sioux City
Mulford, William A., Creston
Mulry, William C., Carroll
Mulsow, Frederick W., Cedar Rapids
Munger, Elbert E., Jr., Spencer
Munns, Richard E., Hampton
Murchison, Kenneth, Sidney (L.M.)
Murphey, Arlo L., Fredericksburg
Murphy, Cornelius B., Alton
Murphy, George C., Waterloo
*Murphy, James H., Des Moines
Murphy, Robert E., Fort Madison
Murray, Frederick G., Cedar Rapids (L.M.)
Murray, Jonathan H., Burlington
Murtaugh, James E., New Hampton
Myerly, William H., Des Moines
Myers, Kermit W., Sheldon
Myers, Robert W., Monticello

Nakashima, Victor K., Dubuque
Nash, Edwin A., Des Moines (L.M.)
Nash, Warren, Waterloo
Nauman, Ernest C., Waterloo
Neal, Emma J., Cedar Rapids (L.M.)
Nederhiser, Morgan I., Cascade
Needles, Roscoe M., Atlantic
Neff, Herbert, Guthrie Center
Neglia, Fortunato J., Maxwell
Neligh, Gordon L., Jr., Council Bluffs
Nelken, Leonard, Clinton
Nelson, Arnold L., Des Moines
Nelson, F. Lawrence, Ottumwa
Nelson, Leo C., Jefferson
Nelson, Norman B., Iowa City
Nelson, Paul O., Emmetsburg
Nelson, Robert J., Clinton
Nemec, Joseph J., Cedar Rapids
Nemmers, Gerald J., Washington
Netolicky, Robert Y., Cedar Rapids
Neufeld, Robert J., Davenport
Neuzil, William J., Cedar Rapids (L.M.)
Newland, Don H., Belle Plaine
Newland, Don O., Des Moines
Niblock, George F., Homewood, Ill. (L.M.)
Nicholson, Clyde G., Des Moines
Nicoll, Charles A., Panora
Nicoll, David T., Mitchellville (L.M.)
Nielsen, Arnold T., Ankeny
Nielsen, Glen E., Des Moines
Nielsen, Rudolph F., Cedar Falls
Nielson, Arthur L., Council Bluffs
Niemann, Theodore V., Brooklyn
Nierling, Paul A., Cresco
Nitzke, Everett A., Des Moines
Niver, Edwin O., Clarinda
Noble, Nelle S., Des Moines (L.M.)
Noble, Rusl P., Alta
Noe, Carl A., Cedar Rapids
Noe, Charles F., Amana (L.M.)
Nolan, John C., Corning
Nomland, Ruben, Iowa City
Noonan, James J., Marshalltown
Nord, Donald H., Cambridge
Nordin, Charles A., Des Moines
Nordschow, Carleton D., Iowa City
Norris, Lewis D., Newton
North, Frank R., Winfield (L.M.)
Northup, Maurice L., Humboldt
Noun, Louis J., Des Moines
Noun, Maurice H., Des Moines
Nyquist, David M., Eldora

Ober, Frank G., Burlington
Obregon, Gonzalo, Iowa City
O'Brien, Lyal J., Fort Dodge
O'Brien, Stephen A., Mason City
O'Brien, Stephen A., Jr., Dubuque
Ochota, Lesek, Belmond
O'Connor, Edwin C., New Hampton
O'Donnell, Joseph E., Clinton
O'Donoghue, Arch F., Sioux City
*O'Donoghue, James H., Storm Lake (L.M.)
Oelrich, Carl D., Sioux Center
Oggel, Herman D., Maurice (L.M.)
O'Keefe, Paul T., Waterloo
O'Leary, Francis B., Sibley
Olin, Elvin E., Dubuque
Olsen, Martin I., Des Moines (L.M.)
Olsen, Max E., Minden
Olsen, Ranald E., Milton
Olson, Evelyn M., Winterset
Olson, Russell L., Northwood
Olson, Stewart O., Des Moines
O'Neal, Harold E., Tipton
Onnen, Dale R., Newton
Orcutt, Paul E., Marion
Orelup, Don N., Albia
Ortmeyer, Donald W., Waterloo
Orton, Lawrence C., Mason City
Osborn, C. Robert, Dexter
Osincup, Paul W., Sioux City
Osten, Burdette H., Northwood
O'Toole, Laurence C., LeMars
Ottilie, Donald J., Oelwein
Otto, Paul C., Fort Dodge
Overton, Roy W., West Des Moines
Owca, Anthony S., Centerville
Owen, William E., St. Ansgar
Ozaydin, Ismail M., Council Bluffs

Packard, Douglas K., Dubuque
Page, Elizabeth B., Iowa City
Page, Wesley M., Montezuma
Pahlas, Henry M., Dubuque
Paige, Ralph T., LaPorte City
Painter, J. Carl, Dubuque (A.M.)
Palcheff, Christ L., University City, Mo.
Palmer, Carson W., Guttenberg (A.M.)
Palmer, Gerald K., Iowa City
Palmer, Howard C., West Liberty
Palumbo, Louis T., Des Moines
Paragas, Modesto R., Creston
Parish, John R., Grinnell
Parke, John, Cedar Rapids
Parker, Loran F., Iowa Falls
Parker, Robert L., Des Moines (L.M.)
Parks, Claude O., Iowa City
Parks, John L., Muscatine
Parson, Victor G., Des Moines
Parsons, John C., Des Moines
Paschal, George A., Webster City
Pascoe, Paul L., Carroll
Patterson, John N., Burlington (L.M.)
Patterson, Roy A., Webster City
Paul, John D., Anamosa
Paul, Richard E., Des Moines
Paul, William D., Iowa City
Paulsen, Donald A., Victor
Paulsen, Herbert B., Harris
Paulson, Jerome F., Mason City
Paulus, Edward W., Iowa City
Paulus, James W., Dubuque
Pearlman, Leo R., Des Moines
Pearson, George J., Burlington
Peart, John C., Davenport
Peasley, Harold R., Des Moines
Peck, Lowell J., Iowa City
Pedersen, Arthur M., Council Bluffs
Pedersen, Paul D., Council Bluffs
Peggs, Harold J., Creston
Peisen, Conan J., Des Moines
Pelz, Werner P., Charles City
Penly, Don H., Cedar Falls
Pennington, Orville J., Dexter (L.M.)
Perel, Ada R., Des Moines
Perkins, Franklin C., Hedrick
Perkins, Rollin M., Davenport
Perley, Arthur E., Waterloo
Perrin, William D., Sumner
Pester, George H., Council Bluffs
Peters, Earl E., Muscatine
Petersen, Donal C., Burlington
Petersen, Emil C., Atlantic
Petersen, Millard T., Atlantic
Petersen, Robert E., Dubuque
Petersen, Vernon W., Clinton
Peterson, Byron E., Mount Pleasant
Peterson, Charles R., Des Moines
Peterson, Elroy R., Ames
Peterson, Frank R., Cedar Rapids
Peterson, John C., Jr., Hartley
Peterson, Ray W., Clear Lake
Peterson, Richard E., Iowa City
Peterson, Richard J., Panora
Pfaff, Robert A., Dubuque
Pfeiffer, Donald W., McGregor
Pfeiffer, Harry E., Riviera Beach, Florida (L.M.)
Pfohl, Anthony C., Dubuque
Phelan, Mary Patricia, Altoona
Phelps, C. Ray, Ottumwa
Phelps, Gardner D., Waterloo
Phelps, Richard E. H., New Sharon
Pheteplace, Willard S., Davenport
Phillips, Albin B., Clear Lake (L.M.)
Phillips, Allan B., Des Moines
Phillips, Clarence P., Muscatine
Phillips, Walter B., Montezuma
Piburn, Marvin F., South Rhodesia, Africa
Piekenbrock, Frank J., Dubuque
Piekenbrock, Thomas C., Dubuque
Piercy, Kenneth C., Ames
Pierson, Lawrence E., Sioux City
Pietrzak, Julius, Cedar Rapids
Ping, Er Chang, Independence
Pitcher, Arlo L., Belmond
Pitluck, Harry L., Laurens
Pittinger, Charles B., Iowa City
Plager, Vernon H., Waterloo
Plankers, Arthur G., Dubuque
Poepsel, Frank L., West Point
Ponseti, Ignacio V., Iowa City
Poore, Samuel D., Villisca
Porter, Lawrence W., Indianola
Porter, Philip M., New Hampton
Porter, Richard C., Des Moines
Porter, Robert J., Des Moines
Porter, S. Dale, Grinnell
Posner, Edward R., Jr., Des Moines
Posner, Edward R., Sr., Des Moines (L.M.)
Powell, Lester D., Des Moines
Powell, Robert A., Shenandoah
Powell, Robert M., Mason City
Powers, George H., Shenandoah
Powers, Henry R., Emmetsburg
Powers, Ivan R., Waterloo
Powers, John L., Estherville
Powers, William J., Vinton
Preacher, Charles B., Davenport
Preece, Wade O., Waterloo
Prescott, Kenneth H., Storm Lake
Presnell, William H., Charlotte
Prewitt, Leland H., Ottumwa
Price, Richard B., Iowa City
Priestley, Joseph B., Des Moines
Proctor, Rothwell D., Cedar Rapids
Prouty, James V., Cedar Rapids
Province, William, Jr., Dubuque
Ptacek, Joseph L., Webster City
Pugh, Philip F. H., Sioux City
Pumphrey, Loira C., Keokuk
Puntenney, Andrew W., Boone
Purdy, William O., Des Moines

Radcliffe, Christian E., Iowa City
Radicia, Lucy M., Council Bluffs
Rahn, Gordon E., Mount Vernon
Rainy, Curtis W., Elma
Ralston, Furman P., Knoxville
Rambo, David T., Ottumwa (L.M.)
Ramsdell, Stuart T., Clarinda
Randall, John H., Iowa City
Randall, Ross G., Waterloo
Randall, William L., Hampton
Randolph, Aaron P., Anamosa
Rankin, Isom A., Iowa City
Rankin, John R., Keokuk
Rankin, William, Keokuk (L.M.)
Ransom, Harry E., Des Moines
Rater, David L., Ottumwa
Rathe Herbert W., Waverly
Rausch, Gerald R., Sioux City
Ravreby, Mark D., Des Moines
Raw, Elmer J., Pierson (L.M.)
Read, Charles H., Iowa City
Reading, Donald S., Marshalltown
Readinger, Harry M., New Londen
Redfield, Earl L., Des Moines
Redmond, James J., Cedar Rapids
Redmond, Thomas M., Monticello (L.M.)
*Reed, Paul A., Iowa City (L.M.)
Reed, Robert J., Des Moines
Reeder, James E., Sioux City
Reeder, James E., Jr., Sioux City
Reedholm, Edwin A., Grundy Center
Reimers, Robert S., Fort Madison (L.M.)
Rembolt, Raymond R., Iowa City
Rence, William G., Mason City
Resinger, Harold E., Des Moines
Reuber, Roy N., Mason City
Reuling, Frank H., Waterloo
Rhodes, John M., Pocahontas
Rice, Floyd W., Des Moines (L.M.)
Richardson, Francis H., Council Bluffs
Richards, Richard D., Waterloo
Richey, Granville L., Centerville
Richmond, Arthur C., Fort Madison
Richmond, Frank R., Fort Madison
Richmond, Frank R., Jr., Fort Madison
Richmond, Paul C., New Hampton
Richter, Harold J., Albia
Ridenour, Edward J., Waterloo
Ridenour, Joseph E., Waterloo (L.M.)
Riegelman, Ralph H., Des Moines
Rieniets, John H., Cedar Rapids
Riggert, Leonard O., Clinton
Rimel, George W., Bedford
Rindskopf, Wallace, Des Moines
Rinker, George E., Oto (L.M.)
Ritter, Eugene F., Centerville
Ritter, John A., Ottumwa
Rizzo, Frank M., Sibley
Robb, James B., College Park, Maryland (L.M.)

Robb, William J., Cedar Rapids
Roberts, C. Ronald, Dysart
Roberts, Francis M., Knoxville (L.M.)
Roberts, Justus B., Ottumwa
Robertson, Treadwell A., West Liberty
Robinson, Ray G., State Center
Robinson, Robert E., Waverly (L.M.)
Robinson, Van C., Des Moines
Rock, J. Gordon, Davenport
Rock, John E., Davenport
Rock, William K., Waterloo
Rockwell, Maryelda, Clinton
Rodabaugh, Kenneth D., Tabor
Rodawig, Don F., Spirit Lake
Rodawig, Donald F., Jr., Spirit Lake
Roddy, Harold J., Mason City
Rodemeyer, Frederick H., Sheffield (L.M.)
Rodgers, George H., Mount Ayr
Rogers, Claude B., Earlville (L.M.)
Rohlf, Edward L., Jr., Waterloo
Rohner, William L., Iowa City
Rohrssen, Donald, Iowa City
Rowher, Roland T., Sioux City
Rolfs, Floyd O., Parkersburg
Rolfs, Fred A., Aplington
Romero, Jose M., Des Moines
Rominger, Clark R., Waukon
Rominger, Clark W., Waukon (L.M.)
Rooney, Joseph M., Algona
Rose, Alvin A., Story City
Rose, Joseph E., Grundy Center
Rosebrook, Lee E., Ames
Rosendorff, Charlotte, Davenport
Ross, Arthur J., Jr., Perry
Rost, Glenn S., Lake City
Rotkow, Maurice J., Des Moines
Roudybush, William B., Muscatine
Roules, J. Frederic, Mediapolis
Rowat, Harry L., Des Moines (L.M.)
Rowley, Robert D., Iowa City
Rowley, William G., Sioux City (L.M.)
Rowney, George W., Sioux City
Royal, Lester A., West Liberty (L.M.)
Royal, Malcolm A., Des Moines (L.M.)
Rudersdorf, Howard E., Sioux City
Ruliffson, Howard D., Storm Lake
*Ruml, Wentzle, Cedar Rapids (L.M.)
Rusk, Ross P., Dubuque
Russell, Elwood P., Burlington
Russell, John, Santa Barbara, Calif. (L.M.)
Russell, Ralph E., Waterloo
Rust, Emery A., Webb (L.M.)
Ruth, Verl A., Des Moines
Ryan, Allen J., Harlan
Ryan, Charles M., Sioux City
Ryan, Cyril J., Clinton (A.M.)
Ryan, Martin J., Sioux City
Ryan, Robert A., Fairfield

*St. Onge, Joseph A., Sioux City
Saar, Jesse L., Donnellson
Saar, Jesse L., Jr., Burlington
Saar, John W., Keokuk
Safley, Max W., Forest City
Sahl, Jens, Jr., Iowa City
Sahs, Adolph L., Iowa City
Samberg, Harry H., Des Moines
Sampson, Carl E., Creston
Sampson, Frank E., Creston (L.M.)
*Sams, Joseph H., Clarion (L.M.)
Sanders, George E., Miami, Florida (L.M.)
Sanders, Matthew G., Fort Dodge
Sanders, William E., Tucson, Arizona (L.M.)
Sands, Sidney L., Des Moines
Sands, W. Wayne, Des Moines
Sarff, Floyd G., Logan
Sartor, Guido J., Mason City
Sartor, Pierre, Titonka (L.M.)
Satrang, Geraldine, Sioux City
Sattler, Dwight G., Kalona
Sauer, Harold E., Marshalltown
Saul, F. William, Mason City
Sautter, Robert A., Mount Vernon
Sawyer, Grace M., Woodward
Scales, E. Thomas, Des Moines
Scanlan, George C., Clinton
Scanlon, George H., Iowa City
Schacht, Norman A., Fort Dodge
Schaefer, Paul H., St. Louis, Mo. (L.M.)
Schaeferle, Lawrence G., Gladbrook
Schaeferle, Martin J., Eagle Grove
Schafer, Leander H., DeWitt
Schaffner, Rome L., Cedar Rapids
Schanche, Arthur N., Ames
Scharle, Theodore, Dubuque
Scheffel, Melvin L., Malvern
Scheibe, John R., Bloomfield
Schill, Austin E., Des Moines
Schissel, Donald, Des Moines
Schlaser, Verne L., Des Moines
Schlichtemeier, Ellis O., Spencer
Schmitt, Donald D., Ringsted
Schnug, George E., Dows
Schoonover, Richard, Bloomfield
Schrier, Harold L., Fort Madison
Schrock, Christian E., Iowa City
Schroeder, Adrian J., Marshalltown
*Schroeder, Frank N., Ryan
Schroeder, Leslie V., Walcott
Schropp, Rutledge C., Des Moines
Schrup, Joseph H., Dubuque (L.M.)
Schueller, Charles J., Dubuque
Schultz, Ivan T., Humboldt
Schultz, Nelle E. T., Humboldt
Schupp, Joseph G., Jr., Des Moines
Schutter, John M., Algona
Schwartz, Charles, Cedar Rapids
Schwartz, John W., Sioux City
Sciortino, Aileen E. Mathiasen, Council Bluffs
Sciortino, Arthur L., Council Bluffs
Sciscent, Verdi I., Waterloo
Scott, Phillip A., Spirit Lake
*Scott, Sophie Hinze, Des Moines (L.M.)
Scoville, Victor T., Sioux City
*Seaman, Charles L., Cherokee
Sear, John, Alden
Sebek, Roy O., Fort Dodge
Sedlacek, Leo B., Cedar Rapids
Sedlacek, Richard L., Cedar Rapids
Sedlacek, Robert A., Iowa City
Seebohm, Paul M., Iowa City
Seely, Harmon D., Cherokee
Seibert, Cecil W., Waterloo
Seidler, William A., Jr., Jamaica
Sellards, Joseph W., Clarinda (L.M.)
Sells, Benjamin B., Independence (L.M.)
Selo, Rudolph A., Council Bluffs
Senft, Otto E., Fort Dodge
Senska, Frank R., Iowa City (A.M.)
Senty, Elmer G., Davenport
Severson, George J., Slater
Severson, Wayne L., Slater
Shafer, Arthur W., Davenport
Shane, Robert S., Pilot Mound
Shank, Raymond A., Cedar Rapids
Sharpe, Donald C., Dubuque
Shaw, David F., Britt
Shaw, Robert E., Waverly
Shea, Thomas E., Storm Lake
Sheeler, Ivan H., Des Moines
Sheets, Raymond F., Iowa City
Shelton, Charles D., Bloomfield (L.M.)
Shepherd, Loyd K., Des Moines
Sherman, Richard C., Los Angeles, Calif. (L.M.)
Sherman, Robert B., Ackley
Shiffler, H. Kirby, Des Moines
Shinkle, William C., Des Moines
Shohet, Isaac H., Bode
Shope, Charles D., Greenfield
Shorey, Joseph R., Davenport
Shulman, Herbert, Waterloo
Shultz, William T., Des Moines
Shurts, John J., Eldora
Sibley, John A., Ames
Sibley, Edward H., Sioux City
Simpson, Roger A., Iowa City
Simmons, Ralph R., Des Moines (A.M.)
Singer, John R., Newton
Singer, Siegmund F., Ottumwa
Sinn, Irvin J., Williamsburg
Sinning, Augustus, Iowa City (L.M.)
Sinning, John E., Marshalltown
Sitz, Edward J., Iowa City
Skallerup, Glenn M., Red Oak
Skelley, Paul B., Jr., Dubuque
Skultety, F. Miles, Iowa City
Skultety, James A., Des Moines
Sloan, Fred R., Waterloo
Sloan, Fredric J., Cedar Rapids
Sloan, Morris G., Des Moines
Sloterdyk, Yme, Knoxville
Smazal, Stanley F., Davenport
Smead, Howard H., Des Moines
Smead, Leslie L., Newton (L.M.)
Smiley, George W., Ottumwa
Smiley, Ralph E., Mason City
Smith, Alfred N., Des Moines
Smith, Andrew C., Waterloo
Smith, Andrew D., Primghar
Smith, Anthony P., Hampton
Smith, Arthur F., Manning
Smith, Cecil R., Wyoming
Smith, Clyde J., Gilmore City
Smith, Elmer M., Eagle Grove
Smith, Eugene, Waterloo
Smith, Herman J., Des Moines
*Smith, Howard W., Woodward
Smith, J. Lawrence, Iowa Falls
Smith, J. Ned, Iowa City
Smith, John E., Clarence (L.M.)
Smith, John M., Iowa City
Smith, Lawrence D., Des Moines
Smith, Richard C., Cedar Rapids
Smith, Richard T., Iowa City
Smith, Richard W., Clarion
Smith, Robert A., Albia
Smith, Robert J., Stacyville
Smith, Robert T., Granger
Smith, Rodger B., Mason City
Smith, S. Rodmond, Red Oak
Smith, Sidney A., Oskaloosa
Smrha, James A., Cedar Rapids
Smythe, Arnold M., Des Moines
Snyder, Gregg M., Ottumwa
Snyder, Raleigh R., Des Moines (L.M.)
Sohm, Herbert A., Des Moines
Sokol, Charles R., State Center
Sones, Clement A., Des Moines
Soper, Robert T., Iowa City
Sorensen, Elmer M., Red Oak
Sorenson, Aral C., Davenport
Sorenson, Kermit R., Sabula
Southwick, William W., Marshalltown
*Spain, Robert T., Conrad (L.M.)
Sparks, Francis R., Waverly (L.M.)
Spear, William, Oakdale
Spearing, Joseph H., Harlan
Speidel, Glenn P., Washington, D. C.
Spellman, George G., Sioux City
Spellman, Martin T., Cedar Rapids
Spencer, John H., Muscatine
Sperow, Wendell B., Nevada
Sperry, Frederick S., Clarinda
Spevak, Jack J., Des Moines
Spilman, Harold A., Ottumwa
Spohnheimer, L. Nelson, Coralville
Springer, Floyd A., Des Moines
Sproul, William M., Des Moines
Stalford, John H., Los Angeles, Calif. (L.M.)
Stamler, Frederic W., Iowa City
Standefer, Joe M., Des Moines
Stansbury, John E., Santa Barbara, Calif. (A.M.)
Stark, Callistus H., Cedar Rapids
Stark, Frederick M., Sioux City
Starr, Charles F., Mason City (L.M.)
Starry, Allen C., Sioux City (A.M.)
Statton, Roy F., Lincoln, Nebr.
Stauch, Martin O., Moorhead
Stauch, Omar A., Sioux City
Steenrod, Emerson J., Iowa Falls
Steffens, Lincoln F., Dubuque
Steffey, Fred L., Keokuk
Stegmaier, Otto C., Davenport
Stegman, Jacob J., Marshalltown
Steindler, Arthur, Iowa City (L.M.)
Stephen, Paul, Cedar Rapids
Stephen, Raymond J., Cedar Rapids
Stepp, James K., Manchester
Sternagel, Fred, West Des Moines
Sternberg, Walter A., Pacific Palisades, Calif. (L.M.)
Sternhill, Isaac, Council Bluffs
Stevens, Clark W., Dubuque
Steves, Richard J., Des Moines
Stewart, John H., Ottumwa
Stewart, John K., Clinton
Stickler, Robert B., Des Moines
Stimac, Emil M., Davenport
Stinard, Charles D., Glenwood
Stinson, Alice C., Estherville (L.M.)
Stitt, Paul L., Fort Dodge
Stoakes, Charles S., Lime Springs (L.M.)
Stober, Raymond W., Charles City
Stoikovic, Joseph P., Burlington
Stomel, Joseph, Independence
Storck, Robert D., Dubuque
Strand, Clarence M., Dubuque
Strathman, Lawrence C., Shenandoah
Straub, Joseph J., Dubuque
Straumanis, Janis, Solon
Strawn, John T., Vinton (L.M.)
Strong, Kirk H., Fairfield
Stroy, Donald T., Council Bluffs
Stroy, Herbert E., Osceola
Stuart, Percy E., Nashua (L.M.)
Stueland, Alvin J. R., Mason City
Stumme, Ernest H., Denver
Suchomel, Thomas F., Cedar Rapids
Sullivan, Daniel J., Sutherland
Sullivan, John E., Des Moines
Sullivan, John V., Carroll
Sulzbach, John F., Burlington
Summers, Thomas B., Des Moines
Sun, Kuei shu, Ames
Sunderbruch, John H., Davenport
Sutton, Gerald H., Jr., Boone
Svendsen, Reinert N., Keokuk
Swann, Raymond O., Iowa City
Swanson, Eric M., Fort Dodge
Swanson, Gerald W., Lamoni
Swanson, Leslie W., Mason City
Swayze, V. Warren, Muscatine

Sweeney, Lloyd J., Sanborn
Swift, Frederick J., Jr., Maquoketa
Swift, Frederick J., Sr., Maquoketa (L.M.)
Sybenga, Jacob J., Pella
Synhorst, John B., Des Moines (A.M.)
Sywassink, George A., Muscatine

Tabor, James R., Marion
Tait, John H., Des Moines
Tamisiea, Francis X., Missouri Valley
Taylor, Charles B., Claremont, Calif. (L.M.)
Taylor, Donald E., Stuart
Taylor, James H., Clinton
Taylor, Lawrence A., Ottumwa
Taylor, Maude, Ottumwa (L.M.)
Taylor, Robert S., Davenport
Taylor, Wendell W., Sheffield
Teigland, Joel D., Des Moines
Telfer, William L., Waterloo
Teufel, John C., Davenport (L.M.)
Thaler, David, Cedar Rapids
Tharp, Herbert M., Monroe
Thatcher, Wilbur C., Fort Dodge
Theilen, Ernest O., Iowa City
Theisen, Roy I., Dubuque
Thielen, Edward W., Waterloo
Thielen, John B., Fonda
Thoman, William S., Sioux City
Thomas, Clifford W., Mason City
Thomas, Clyde E., Keystone
Thomas, Colin G., Monticello
Thomas, Gary L., Iowa City
Thomas, James H., Sibley
*Thomas, William H., McGregor (L.M.)
Thompson, E. Dean, Jefferson
Thompson, Howard E., Dubuque (L.M.)
Thompson, James R., Waterloo (L.M.)
Thompson, Kenneth L., Oakland
Thompson, Virginia D., Des Moines
Thomsen, John G., Des Moines
Thorburn, Oral L., Ames
Thornton, F. Eberle, Des Moines
Thornton, George H. M., Iowa City
Thornton, John W., Lansing
Thornton, Thomas F., Waterloo
Thornton, Thomas F., Jr., Waterloo
Thorson, John A., Dubuque
Throckmorton, J. Fred, Des Moines
Throckmorton, Jeanette D., Des Moines (L.M.)
Throckmorton, Scott L., Chariton
Throckmorton, Tom B., Des Moines
Throckmorton, Tom D., Des Moines
Tice, Claude B., Mason City (L.M.)
Tice, George I., Mason City
Tice, W. Arnold, Waterloo
Tidrick, Robert T., Iowa City
Tiedeman, John P., Sioux City
Tierney, Edmund J., Sioux City
Tierney, James M., Carroll
Tilton, John J., Bellevue
Todd, Donald W., Guthrie Center
Todd, Robert L., Burlington
Tolliver, Hillard A., Charles City
Top, Franklin H., Iowa City
Toubes, Abraham A., Des Moines
TouVelle, Alwyn R., Bettendorf
Towle, Robert A., Davenport
Tracy, John S., Sioux City
Trafton, Harold F., Council Bluffs
Traister, John E., Eddyville (L.M.)
Trefz, Donald L., Nashua
Trey, Bernard L., Marshalltown
Treynor, Jack V., Council Bluffs
Trier, Paul J., Des Moines
Trotzig, Joseph P., Akron
Troxel, John F., Cedar Rapids
Troxell, Millard A., Cedar Rapids
Trueblood, Clare A., Indianola
Trumpe, William D., Cedar Rapids
Trunnell, Thomas L., Waterloo
Turner, George E., Des Moines
Turner, Howard V., Des Moines
Turner, Rosalie C., Nashua
Turner, Roy M., Armstrong
Turner, William R., Fort Dodge (L.M.)
Tyler, Donald E., Fort Dodge
Tyrrell, John E., Manchester

Uchiyama, John K., Des Moines
Undem, Dale W., Jeffersonville, Indiana
Underriner, Robert E., Holstein
Updegraff, Charles L., Boone
Updegraff, Robert R., Des Moines
Updegraff, Thomas R., Waterloo
Urich, Vernon C., Mason City
Utne, John R., Mason City
Utterback, Robert A., Iowa City

Valiquette, Frank G., Sioux City
Van Bemmel, Piet F., Ames
Van Camp, Thomas H., Breda
Vander Meulen, Herman C., Pella
Vander Stoep, Harry L., LeMars
Van Epps, Clarence E., Iowa City (L.M.)
Van Epps, Eugene F., Iowa City
Vangsness, Ingmar U., Sioux City
Van Metre, Paul W., Rockwell City
Van Natta, Carlton W., West Des Moines
Van Patten, E. Martin, Fort Dodge
Van Tiger, William H., Eldora
Van Werden, Benjamin D., Keokuk
Van Wetzinga, Russell J., Bettendorf
Van Zante, Peter, Pella
Vaubel, Ellis K., Estherville
Vaughn, Vincent J., Ottumwa
Vegars, Stanley H., Mason City
Veldhouse, Richard H., Cedar Rapids
Veley, Robert W., Cedar Rapids
Vercio, Raymond A., Burlington
Vernon, Robert G., Dubuque
Vespa, Raymond, Des Moines
Victorine, Edward M., Cedar Rapids
Viner, Thomas R., Leon
Vineyard, Thomas L., Ottumwa
Voigt, Ernest J., Burlington
Voigt, Franz O. W., Oskaloosa
von Lackum, J. Kenneth, Cedar Rapids
Vorhes, Carl E., Sheldon
Vorisek, Elmer A., Des Moines
Vorpahl, Rudolph A., Cedar Rapids (L.M.)
Vosika, Edward J., Washington
Voss, Edward C., Jr., Iowa City
Voss, Otto R., Davenport (L.M.)

Waggoner, Charles V., Clinton
Wagner, Donald J., Sioux City
Wagner, Eugene C., Plainfield
Wahrer, Frederick L., Marshalltown
Wainwright, Max T., Sioux City
Waldorf, Richard D., Waterloo
Walker, Charles C., Des Moines
Walker, Glenn L., Burlington
Walker, Herbert P., Clarion (L.M.)
Walker, John R., Waterloo
Walker, Thomas S., Riceville (L.M.)
Walker, William M., Iowa City
Wall, David, Ames
Wall, John M., Boone
Wallace, Leo F., Burlington
Walliker, Wilbur M., Clinton (L.M.)
Walston, Edwin B., Des Moines (L.M.)
Walston, James H., Sioux City
Walter, Dennis J., Des Moines
Walton, Seth G., Hampton
Walz, Donald V., Iowa City
Wanamaker, A. Roy, Hamburg
Ward, Donovan F., Dubuque
Ward, Loraine W., Oelwein
Warden, Duane D., Council Bluffs
Ware, John, Mount Vernon
Ware, Stephen C., Iowa City
Ware, Thomas A., Sioux City
Warner, Emory D., Iowa City
Warner, Paul L., Wesley
Waterbury, Charles A., Jr., Waterloo
Watson, Charles F., Fairfield
Watson, Elbert J., Diagonal (L.M.)
Watters, George H., Des Moines
Watts, A. Fred, Creston
Watts, Campbell F., Cedar Rapids
Watts, Clyde F., Marengo
Weaver, David F., Davenport
Weaver, Kenneth H., Union
Weaver, Ralph L., Cumberland
Webb, Daniel R., Oakdale
Weber, Frank N., Walnut
Weber, William W., Pomeroy
Weems, Nev E., Paullina
Weideman, Don C., Vinton
Weih, Elmer P., Clinton
Weikel, Vernon E., Sioux City
Weinberg, Harry B., Davenport
Weingart, Julius S., Des Moines
Weis, Howard A., Davenport
Weland, Regis E., Cedar Rapids
Wellman, Thomas G., Clinton
Wells, Rodney C., Marshalltown
Wentworth, Laydon S., Marble Rock
Wentzien, Albert J., Tama
Werner, Harold T., Fort Madison
Wessels, William R., Marshalltown
West, Alroy G., Council Bluffs
West, Norman D., Avoca
West, Walter E., Centerville (L.M.)
Westly, G. Travis, Mason City
Westly, J. Stephen, Mason City
Weston, B. Raymond, Mason City
Weston, Robert A., Des Moines (L.M.)
Wetrich, Max F., Grand Junction
Wettach, Robert S., Mount Pleasant
Weyhrauch, Robert A., Waterloo
Weyer, Joseph J., Fort Dodge
Wheeler, Richard A., Des Moines
Whitaker, Ben T., Boone
White, George H., Des Moines
Whitehouse, William N., Ottumwa
Whitley, Ralph L., Osage (L.M.)
Whitmer, Lysle H., Muscatine
Whitmire, James E., Sumner
*Whitmire, William L., Sumner (L.M.)
Wichern, Homer E., Des Moines
Wicklund, Maurice M., Waterloo
Wicks, Ralph L., Boone
Widman, Richard A., Lake City
Widmer, James G., Wayland
Widmer, Reuben B., Winfield
Wiedemeier, Joseph L., Sioux City
Wilcox, Delano, Malcom (L.M.)
Wilcox, Dwain E., Atlantic
Wilcox, Edgar B., Oskaloosa (L.M.)
Wilcox, Keith E., Muscatine
Wilcox, Kenneth M., Fort Dodge
Wilcox, Robert A., Iowa City
Wildberger, William C., Perry
Wilhelmi, Raymond W., Sioux City
Wilke, Frank A., Perry
Wilkinson, Levi J., Marshalltown (L.M.)
Willett, Wilton J., Manchester
Williams, Frank S., Villisca (L.M.)
Williams, Lawrence B., Maquoketa
Williams, M. Neil, Des Moines
Williams, Nathan B., Belle Plaine
Williamson, Billy J., Keokuk
Wilson, Charles R., Manson
Wilson, F. Dale, Davenport
Wilson, Fredric L., Sioux City
Wilson, Fredric W., Sioux City
Wilson, Robert G., Missouri Valley
Winder, Clifford D., Waterloo
Winninger, Louis T., Waterloo
Winter, F. Donald, Burlington
Wirtz, Dwight C., Des Moines
Wise, Arthur C., Iowa City
Wise, James H., Cherokee
Wohlwend, Edward B., Iowa City
Wolcott, Ruth F., Spirit Lake
Wolf, Henry H., Elgin
Wolf, William J., West Union
Wolfe, Otis D., Marshalltown
Wolfe, Russell M., Marshalltown
Wolfe, Wilson C., Ottumwa
Wolff, Harold D., Iowa City
Wolfson, Harold, Kingsley
Wolpert, Paul L., Onawa
Wolters, Donald E., Estherville
Wolverton, Benjamin F., Cedar Rapids
Wood, John R., Wadena
Woodard, Floyd O., Des Moines
Woodburn, Chester C., Jr., Des Moines
Woodhouse, George R., Vinton (L.M.)
Woodhouse, Keith W., Cedar Rapids
Woodward, Arthur W., Waterloo
Woodward, Lee R., Mason City
Woodward, Ralph E., Iowa City
Wooters, Richard C., Des Moines
Wormhoudt, Herbert L., Ottumwa
Worrell, James T., Keosauqua
Wray, Clarence M., Iowa Falls (L.M.)
Wray, Robert M., Cedar Rapids
Wright, David W., Decorah
Wright, Thomas D., Newton
Wubbena, Arthur C., Rock Rapids
Wunschel, Richard C., Davenport
Wurtzer, Ezra L., Clear Lake (A.M.)
Wyatt, George M., Iowa City
Wykoff, Sarah U., Des Moines

Yancey, C. Corbin, Sioux City
Yein, Chung Sung, Waterloo
Yetter, William L., Iowa City
Yocom, Albert L., Chariton
Yohe, Ruth McChesney, Des Moines
York, Dallas L., Creston
Young, Ernest R., Dubuque (L.M.)
Young, George G., Des Moines
Young, Howard O., Marion
Young, James J., Clinton
Young, Richard A., Clarion
Yugend, Sidney F., Indianola

Zabloudil, Warren C., Preston
Zager, Lewis L., Waterloo
Zehr, Earl E., Guttenberg
Zelinskas, Leonard P., Dubuque
Zibilich, George J., Lone Tree
Ziffren, Sidney E., Iowa City
Zimmerer, Edmund G., Des Moines
Zimmerman, George R., Iowa City
Zoeckler, Samuel J., Des Moines
Zukerman, Cecil M., Davenport

★ Military Service
* Deceased
(L.M.) Life Member
(A.M.) Associate Member

FIFTY YEAR CLUB MEMBERS

June 15, 1958

Acher, Albert E. ..... Fort Dodge

Baldwin, Leon A. ..... Riverton
Barbour, Howard W. ..... Mason City
Barr, Guy E. ..... Sioux City
Bell, Edward P. ..... Pleasantville
Bierring, Walter L. ..... Des Moines
Bigelow, Charles T. ..... La Grange, Ill.
Binford, William S. ..... Davenport
Birney, Cleanthus E. ..... Estherville
Boice, Clyde A. ..... Washington
Boiler, William F. ..... Iowa City
Bowers, Arthur S. ..... Orient
Bowie, Louis L. ..... Marshalltown
Bruce, James H. ..... Fort Dodge
Bullock, William E. ..... Lake Park
Burcham, Thomas A. ..... Des Moines

Cantwell, John D. ..... Davenport
Carlile, Amos W. ..... Manning
Carson, Andros ..... Des Moines
Chase, William B., Sr. ..... Des Moines
Chittum, John H. ..... Wapello
Clasen, Henry W. ..... Littleton, Colo.
Cole, Elmer J. ..... Woodbine
Conmey, Roy M. ..... Sergeant Bluff
Cooper, Gladys A. ..... Red Oak
Cooper, Jay C. ..... Villisca
Crain, Mattie M. ..... Deep River
Cretzmeyer, Francis X. ..... Emmetsburg
Crew, Arthur E. ..... Marion
Crowley, Daniel F., Sr. ..... Des Moines

Dean, William F. ..... Osceola
Decker, Jay C. ..... Sioux City
Dingman, Marshall E. ..... Urbana
Downing, Leroy M. ..... Cedar Rapids
Dulin, Tarana J. G. ..... Iowa City
Dunn, James ..... Davenport

Ellyson, Charles W. ..... Waterloo

Foulk, Frank E. ..... Backus, Minn.

Gardner, John R. ..... Lisbon
Gearhart, George W. ..... Springville
Gillmor, Benjamin F. ..... Red Oak
Gray, John F. ..... Melcher
Gutch, Thomas E. ..... Albia

Hansen, Robert R. ..... Marshalltown
Harken, Conreid R. ..... Osceola
Harkness, Gordon F. ..... Davenport
Harrington, Burton ..... Cedar Rapids
Harris, Ray R. ..... Dubuque
Heady, Conda C. C. ..... Bloomfield
Hennessy, Felix A. ..... Calmar
Henry, Clyde A. ..... Farson
Hill, James W. ..... Mount Ayr
Hoffman, Paul M. ..... Tipton
Hollis, Edward L. ..... Marengo
Hooper, Lester E. ..... Indianola
Houser, Cass T. ..... Cedar Rapids
Housholder, Harold A. ..... Winthrop
Howell, Elias B. ..... Ottumwa
Hudek, Joseph W. ..... Garnavillo

Ihle, Charles W. ..... Cleghorn
Isenberg, Bertice A. ..... Lohrville

Jackson, James M. ..... Jefferson
Jaenicke, Kurt ..... Clinton
James, Lora D. ..... Fairfield
James, Peter E. ..... Audubon
Janse, Phillip V. ..... Algona
Jarvis, Harry D. ..... Chariton
Jenkins, George A. ..... Albia
Johnson, Amos F. ..... Manilla
Jones, Charles L. ..... Gilmore City
Jones, Harry J. ..... Cedar Rapids

Kahler, Hugo V. ..... Reinbeck
Keech, Roy K. ..... Cedar Rapids
Keeney, George H. ..... Mallard
Kennedy, Elizabeth S. ..... Oelwein
Kern, Lester C. ..... Waverly
Keyser, Ralph E. ..... Marshalltown
Kisor, Frank H. ..... Mechanicsville
Kline, Samuel ..... Sioux City
Knox, James M. ..... Cedar Rapids
Kyle, William S. ..... Washington

Loes, Anthony M. ..... Dubuque
Losh, Clifford W. ..... Des Moines
Luke, Edward ..... Coin

McClean, Earl D. ..... Des Moines
McDowall, Gilbert T. ..... Gladbrook
McHugh, Charles P. ..... Sioux City
Maresh, George W. ..... Denver, Colo.
Merritt, Arthur M. ..... Des Moines
Meyers, Frank W. ..... Dubuque
Mitchell, Claire H. ..... Cincinnati
Morrison, John W. ..... Alta
Murchison, Kenneth ..... Sidney
Murray, Frederick G. ..... Cedar Rapids

Nash, Edwin A. ..... Des Moines
Neal, Emma J. ..... Cedar Rapids
Neuzil, William J. ..... Cedar Rapids
Niblock, George F. ..... Homewood, Ill.
Nicoll, David T. ..... Mitchellville

Oggel, Herman D. ..... Maurice
Olsen, Martin I. ..... Des Moines

Parker, Robert L. ..... Des Moines
Patterson, John N. ..... Burlington
Pfeiffer, Harry E. ..... Riviera Beach, Fla.
Phillips, Albin B. ..... Clear Lake
Posner, Edward R. ..... Des Moines

Quire, Frank E. ..... Lynnville

Rambo, David T. ..... Ottumwa
Rankin, William ..... Keokuk
Raw, Elmer J. ..... Pierson
Redmond, Thomas M. ..... Monticello

Reimers, Robert S.....Fort Madison
Rinker, George E.....Oto
Robb, James B.....College Park, Md.
Robinson, Robert E.....Waverly
Rodemeyer, Frederick H.....Sheffield
Rogers, Claude B.....Earlville
Rominger, Clark W.....Waukon
Rose, Alvin A.....Story City
Royal, Lester A.....West Liberty
Royal, Malcolm A.....Des Moines
Rowley, William G.....Sioux City
Rust, Emery A.....Webb

Sanders, William E.....Tucson, Ariz.
Sellards, Joseph W.....Clarinda
Sells, Benjamin B.....Independence
Shelton, Charles D.....Bloomfield
Sinning, Augustus.....Iowa City
Smead, Leslie L.....Newton
Smith, John E.....Clarence
Snyder, Raleigh R.....Des Moines
Sparks, Francis R.....Waverly
Steindler, Arthur.....Iowa City
Sternberg, Walter A.....Corona Del Mar, Calif.
Stinson, Alice C.....Estherville
Stoakes, Charles S.....Lime Springs
Stuart, Percy E.....Nashua

Taylor, Maude.....Ottumwa
Teufel, John C.....Davenport
Thompson, James R.....Waterloo
Throckmorton, Jeannette Dean.....Des Moines
Tinsman, Eugene S.....Orient
Traister, John E.....Eddyville
Turner, William R.....Fort Dodge

Van Epps, Clarence E.....Iowa City
Vorpahl, Rudolph A.....Cedar Rapids
Voss, Otto R.....Davenport

Walker, Thomas S.....Riceville
Walliker, Wilbur M.....Clinton
Walsh, Thomas N.....Hawkeye
Walston, Edwin B.....Des Moines
Watson, Elbert J.....Diagonal
Westenberger, Joseph C.....St. Ansgar
Weston, Robert A.....Des Moines
Whitley, Ralph L.....Osage
Wilcox, Edgar B.....Oskaloosa
Wilkinson, Levi J.....Marshalltown
Woodhouse, George R.....Vinton
Wray, Clarence M.....Iowa Falls

Young, Ernest R.....Dubuque

Membership Roster of the Woman's Auxiliary To the Iowa State Medical Society

Membership in Good Standing as of June 15, 1958

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Aid, Mrs. F. H., Burlington
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Alden, Mrs. Oscar, Red Oak
Allen, Mrs. M. B., Fort Dodge
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Kruse. Mrs. R. H., Marshalltown
Kuehn, Mrs. W. O., Clarinda
Kuhn, Mrs. M. A., Waterloo

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Larimer, Mrs. R. N., Sioux City
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Larsen, Mrs. F. S., Fort Dodge
Larsen, Mrs. H. T., Fort Dodge
Larsen, Mrs. L. V., Harlan
Larson, Mrs. G. E., Elk Horn
Larson, Mrs. L. E., Decorah
Larson, Mrs. M. O., Hawarden
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Losh Mrs. C. W., Jr., Des Moines
Lovejoy, Mrs. E. P., Des Moines
Lowry, Mrs. C. F., Council Bluffs
Loxterkamp, Mrs. E. O., Rolfe
Ludwig, Mrs. C. J., Cedar Falls
Luehrsmann, Mrs. B. C., Dyersville
Lulu, Mrs. D. J., Des Moines
Lutton, Mrs. J. D., Sioux City

McAllister, Mrs. W. G., Manly
McBride, Mrs. D. R., West Des Moines
McBride, Mrs. R. H., Sioux City
McCarthy, Mrs. F. D., Sioux City
McClean, Mrs. E. D., Des Moines

McClellan, Mrs. J. W., Onawa
McClurg, Mrs. F. H., Fairfield
McCool, Mrs. R. F., Clarion
McCoy, Mrs. H. J., Des Moines
McCoy, Mrs. J. T., Cedar Falls
McDowell, Mrs. W. O., Grundy Center
McFarlane, Mrs. D. J., Dubuque
McFarlane, Mrs. J. A., Sioux City
McGahey, Mrs. W. B., Webster City
McGarvey, Mrs. N. J., Des Moines
McGeehon, Mrs. R. C., Indianola
McGilvra, Mrs. A. L., Sioux City
McGinnis, Mrs. G. C., Fort Madison
McIllece, Mrs. R. C., Fort Madison
McIntosh, Mrs. P. D., Ottumwa
McKay, Mrs. R. V., Dubuque
McKean, Mrs. F. F., Allison
McKitterick, Mrs. J. C., Burlington
McMillan, Mrs. G. J., Fort Madison
McMurray, Mrs. H. N., Burlington
McNamara, Mrs. R. J., Dubuque
McNamee, Mrs. J. H., Des Moines
McTaggart, Mrs. W. B., Fort Dodge
McVay, Mrs. M. J., Lake City
Mahoney, Mrs. J. D., Council Bluffs
Mailliard, Mrs. R. E., Storm Lake
Maixner, Mrs. R. R., Ottumwa
Maixner, Mrs. W. D., Ottumwa
Malek, Mrs. J. C., Waterloo
Maloy, Mrs. W. H., Shenandoah
Maltry, Mrs. Emile, Fort Dodge
Manderscheid, Mrs. R. A., Boone
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Maplethorpe, Mrs. C. W., Toledo
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Marble, Mrs. W. P., Marshalltown
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Markham, Mrs. W. S., Harlan
Marme, Mrs. G. W., DeWitt
Marquis, Mrs. F. M., Waterloo
Marquis, Mrs. G. S., Des Moines
Marriott, Mrs. C. M., Sioux City
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Marsh, Mrs. F. E., Jr., Council Bluffs
Martin, Mrs. L. R., Council Bluffs
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Mathiasen, Mrs. E. B., Council Bluffs
Mathiasen, Mrs. H. W., Council Bluffs
Mathiasen, Mrs. J. W., Council Bluffs
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Merillat, Mrs. H. C., Des Moines
Merkel, Mrs. A. E., Des Moines
Merkel, Mrs. B. M., Des Moines
Merritt, Mrs. F. B., Dubuque
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Meyer, Mrs. R. J., Wellsburg
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Meyers, Mrs. R. P., Ottumwa
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Miller, Mrs. Garfield, Calmar
Miller, Mrs. K. E., Agency
Miller, Mrs. R. L., Waterloo
Miller, Mrs. R. C., Waterloo
Minassian, Mrs. T. A., Des Moines
Mirick, Mrs. D. F., Clinton
Mitchell, Mrs. C. H., Cincinnati
Mitchell, Mrs. R. C., Waterloo
Moberly, Mrs. J. W., Dubuque
Moe, Mrs. R. H., Griswold
Moeller, Mrs. J. A., Dubuque
Moermond, Mrs. J. O., Buffalo Center
Mol, Mrs. H. L., Grundy Center
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Moore, Mrs. C. C., Emmetsburg
Moore, Mrs. E. E., Fort Dodge
Moore, Mrs. Fred, Des Moines
Moore, Mrs. R. M., Des Moines
Morgan, Mrs. F. W., Ottumwa
Morgan, Mrs. J. N., Fairfield
Morgan, Mrs. R. L., Sioux City
Moriarity, Mrs. D. L., Council Bluffs
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Mountain, Mrs. G. E., Des Moines
Mugan, Mrs. R. C., Sioux City
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Munger, Mrs. E. E., Spencer
Murphy, Mrs. G. C., Waterloo
Murphy, Mrs. R. E., Fort Madison
Murray, Mrs. J. H., Burlington
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Myers, Mrs. J. W., Postville
Myers, Mrs. K. W., Sheldon

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Nash, Mrs. Warren, Waterloo
Needles, Mrs. R. M., Atlantic
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Nelken, Mrs. Leonard, Clinton
Nelson, Mrs. R. J., Clinton
Nelson, Mrs. A. L., Des Moines
Nelson, Mrs. F. L., Ottumwa
Nelson, Mrs. F. L., Jr., Ottumwa
Nelson, Mrs. L. C., Jefferson
Nelson, Mrs. P. O., Emmetsburg
Newland, Mrs. D. O., Des Moines
Nicholson, Mrs. C. G., Des Moines
Nicoll, Mrs. C. A., Panora
Nielsen, Mrs. A. T., Ankeny
Nielsen, Mrs. G. E., Des Moines
Nielsen, Mrs. R. F., Cedar Falls
Nielson, Mrs. A. L., Council Bluffs
Nitzke, Mrs. E. A., Des Moines
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Noble, Mrs. R. P., Alta
Nordin, Mrs. C. A., Des Moines
Norment, Mrs. J. E., Clinton
Norris, Mrs. L. D., Newton
Noun, Mrs. L. J., Des Moines
Noun, Mrs. M. H., Des Moines

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O'Brien, Mrs. S. A., Jr., Dubuque
O'Donnell, Mrs. J. E., Clinton
Oelrich, Mrs. C. D., Sioux Center
O'Keefe, Mrs. P. T., Waterloo
O'Leary, Mrs. F. B., Sibley
Olin, Mrs. E. E., Dubuque
Olsen, Mrs. M. I., Des Moines
Olsen, Mrs. Max, Minden
Olsen, Mrs. R. E., Milton
Olson, Mrs. R. L., Northwood
Olson, Mrs. S. O., Des Moines
Ortmeyer, Mrs. D. W., Waterloo
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Osten, Mrs. B. H., Northwood
O'Toole, Mrs. L. C., LeMars
Otto, Mrs. P. C., Fort Dodge
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Poore, Mrs. S. D., Villisca
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Porter, Mrs. L. W., Indianola
Porter, Mrs. R. J., Des Moines
Porter, Mrs. S. D., Grinnell
Posner, Mrs. E. R., Des Moines
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Powell, Mrs. R. A., Shenandoah
Powers, Mrs. Robert, Emmetsburg
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Powers, Mrs. Ivan, Waterloo
Powers, Mrs. J. L., Estherville
Preece, Mrs. W. O., Waterloo
Prescott, Mrs. K. H., Storm Lake
Prewitt, Mrs. L. H., Ottumwa
Priestley, Mrs. J. B., Des Moines
Province, Mrs. William, Jr., Dubuque
Ptacek, Mrs. J. L., Webster City
Pugh, Mrs. P. H., Sioux City
Pumphrey, Mrs. L. C., Keokuk
Puntenney, Mrs. A. W., Boone
Putnam, Mrs. C. L., Des Moines

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Reeder, Mrs. J. E., Jr., Sioux City
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Richmond, Mrs. F. R., Jr., Fort Madison
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Rizzo, Mrs. F. M., Sibley
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Rodawig, Mrs. D. F., Spirit Lake
Rogers, Mrs. C. B., Earlville
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Rominger, Mrs. C. R., Waukon
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Rusk, Mrs. R. P., Dubuque
Russell, Mrs. E. P., Burlington
Rust, Mrs. E. A., Webb
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Ryan, Mrs. M. J., Sioux City
Ryan, Mrs. R. A., Fairfield

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Sanders, Mrs. M. G., Fort Dodge
Sands, Mrs. W. W., Des Moines
Sauer, Mrs. H. E., Marshalltown
Schacht, Mrs. N. A., Fort Dodge
Schaeferle, Mrs. M. J., Eagle Grove
Scheffel, Mrs. M. L., Malvern
Scheibe, Mrs. J. R., Bloomfield
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Schissel, Mrs. D. J., Des Moines
Schlaser, Mrs. V. L., Des Moines
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Schrier, Mrs. H. L., Fort Madison
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Schroeder, Mrs. L. V., Walcott
Schropp, Mrs. R. C., Des Moines
Schueller, Mrs. C. J., Dubuque
Schumacher, Mrs. D. R., Clinton
Schupp, Mrs. J. G., Des Moines
Schwartz, Mrs. J. W., Sioux City
Sciscent, Mrs. V. I., Waterloo
Scott, Mrs. P. A., Spirit Lake
Scoville, Mrs. V. T., Sioux City
Seabloom, Mrs. J. L., Red Oak
Sebek, Mrs. R. O., Fort Dodge
Sedlacek, Mrs. L. B., Cedar Rapids
Seibert, Mrs. C. W., Waterloo
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Seidler, Mrs. W. A., Jr., Jamaica
Selman, Mrs. R. J., Ottumwa
Selo, Mrs. R. A., Council Bluffs
Senft, Mrs. Otto, Fort Dodge
Shane, Mrs. R. S., Pilot Mound
Sharpe, Mrs. D. C., Dubuque
Shaw, Mrs. D. F., Britt
Sheeler, Mrs. I. H., Des Moines
Shepherd, Mrs. L. K., Des Moines
Shiffler, Mrs. H. K., Des Moines
Shinkle, Mrs. W. G., Des Moines

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Shulman, Mrs. Herbert, Waterloo
Sibley, Mrs. E. H., Sioux City
Singer, Mrs. J. R., Newton
Singer, Mrs. S. F., Ottumwa
Sinning, Mrs. J. E., Marshalltown
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Skultety, Mrs. J. A., Des Moines
Sloan, Mrs. F. R., Waterloo
Sloterdyk, Mrs. Yme, Knoxville
Smead, Mrs. H. H., Des Moines
Smead, Mrs. L. L., Newton
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Smith, Mrs. A. D., Primghar
Smith, Mrs. A. N., Des Moines
Smith, Mrs. E. E., Waterloo
Smith, Mrs. E. M., Eagle Grove
Smith, Mrs. H. J., Des Moines
Smith, Mrs. H. W., Woodward
Smith, Mrs. J. E., Clarence
Smith, Mrs. L. D., Des Moines
Smith, Mrs. R. T., Granger
Smith, Mrs. R. W., Clarion
Smith, Mrs. Sidney, Oskaloosa
Smith, Mrs. S. R., Red Oak
Smythe, Mrs. A. M., Des Moines
Snyder, Mrs. G. M., Ottumwa
Snyder, Mrs. R. R., Des Moines
Sohm, Mrs. H. A., Des Moines
Sokol, Mrs. C. R., State Center
Sones, Mrs. C. A., Des Moines
Sorensen, Mrs. E. M., Red Oak
Spearing, Mrs. J. H., Harlan
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Spilman, Mrs. H. A., Ottumwa
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Stark, Mrs. F. M., Sioux City
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Statton, Mrs. R. S., Waterloo
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Stepp, Mrs. J. K., Manchester
Sternagel, Mrs. Fred, West Des Moines
Sternhill, Mrs. Isaac, Council Bluffs
Stevens, Mrs. C. W., Dubuque
Steves, Mrs. R. J., Des Moines
Stewart, Mrs. J. H., Ottumwa
Stickler, Mrs. R. B., Des Moines
Stitt, Mrs. P. L., Fort Dodge
Strand, Mrs. Clarence, Dubuque
Strathman, Mrs. L. C., Shenandoah
Straub, Mrs. J. J., Dubuque
Strong, Mrs. K. H., Fairfield
Stroy, Mrs. D. T., Council Bluffs
Stroy, Mrs. H. E., Osceola
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Sutton, Mrs. G. H., Jr., Boone
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Taylor, Mrs. L. A., Ottumwa
Teigland, Mrs. J. D., Des Moines
Telfer, Mrs. W. L., Waterloo
Thatcher, Mrs. W. C., Fort Dodge
Theisen, Mrs. R. I., Dubuque
Thielen, Mrs. E. W., Waterloo
Thierman, Mrs. E. J., Cedar Falls
Thoman, Mrs. W. S., Sioux City
Thomas, Mrs. J. H., Sibley
Thompson, Mrs. E. D., Jefferson
Thomsen, Mrs. J. G., Des Moines
Thomsen, Mrs. T. F., Red Oak
Thornburg, Mrs. W. V., Guthrie Center
Thornton, Mrs. F. E., Des Moines
Thornton, Mrs. T. F., Jr., Waterloo
Thorson, Mrs. J. A., Dubuque
Throckmorton, Mrs. J. F., Des Moines
*Throckmorton, Mrs. R. F., Des Moines
Throckmorton, Mrs. T. B., Des Moines
Throckmorton, Mrs. T. D., Des Moines
Thurman, Mrs. E. J., Waterloo
Tice, Mrs. W. A., Waterloo
Tiedeman, Mrs. J. P., Sioux City
Tierney, Mrs. E. J., Sioux City
Todd, Mrs. D. W., Guthrie Center
Todd, Mrs. R. L., Burlington
Toubes, Mrs. A. A., Des Moines
Tracy, Mrs. J. S., Sioux City
Trier, Mrs. P. J., Des Moines
Trotzig, Mrs. J. P., Akron
Trueblood, Mrs. C. A., Indianola
Trunnell, Mrs. T. L., Waterloo
Turner, Mrs. H. V., Des Moines
Turner, Mrs. R. M., Armstrong
Turner, Mrs. W. R., Fort Dodge
Tyler, Mrs. D. E., Fort Dodge
Tyrrell, Mrs. J. E., Manchester

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Van Patten, Mrs. E. M., Fort Dodge
Vaubel, Mrs. E. K., Estherville
Vaughn, Mrs. V. J., Ottumwa
Veley, Mrs. R. W., Cedar Rapids
Vercio, Mrs. R. A., Burlington
Victorine, Mrs. E. M., Cedar Rapids
Viner, Mrs. T. R., Leon
Vineyard, Mrs. T. L., Ottumwa
Voigt, Mrs. E. J., Burlington
Voigt, Mrs. F. O. W., Oskaloosa
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Vruno, Mrs. M. J., Fulton, Illinois

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Walker, Mrs. G. L., Burlington
Walker, Mrs. Evon, Ottumwa
Walker, Mrs. J. R., Waterloo
Wall, Mrs. J. M., Boone
Wallace, Mrs. L. F., Burlington
Walliker, Mrs. W. M., Clinton
Walston, Mrs. J. M., Sioux City
Walter, Mrs. D. J., Des Moines
Ward, Mrs. D. F., Dubuque
Ward, Mrs. L. W., Oelwein
Warden, Mrs. D. D., Council Bluffs
Ware, Mrs. T. A., Sioux City
Warren, Mrs. E. T., Stuart
Waterbury, Mrs. C. A., Jr., Waterloo
Watson, Mrs. C. F., Fairfield
Watters, Mrs. G. H., Des Moines
Weaver, Mrs. R. L., Cumberland
Weih, Mrs. E. P., Clinton
Weingart, Mrs. J. S., Des Moines
Weir, Mrs. E. C., Council Bluffs
Wellman, Mrs. T. G., Clinton
Wells, Mrs. R. C., Marshalltown
Werner, Mrs. H. T., Fort Madison
Wessels, Mrs. W. R., Marshalltown
West, Mrs. N. D., Avoca
West, Mrs. W. E., Centerville
Westly, Mrs. S. S., Manly
Wetrich, Mrs. M. F., Grand Junction
Weyer, Mrs. J. J., Fort Dodge
Weyhrauch, Mrs. R. A., Waterloo
Wheeler, Mrs. R. A., Des Moines
Whitaker, Mrs. B. T., Boone
White, Mrs. G. H., Des Moines
Whitehill, Mrs. N. M., Boone
Whitehouse, Mrs. W. N., Ottumwa
Whitmire, Mrs. J. E., Sumner
Wichern, Mrs. H. E., Des Moines
Wicklund, Mrs. M. M., Waterloo
Wicks, Mrs. R. L., Boone
Widmer, Mrs. J. D., Wayland
Wiedemeyer, Mrs. J. L., Sioux City
Wilcox, Mrs. D. E., Atlantic
Wilcox, Mrs. E. B., Oskaloosa
Wilcox, Mrs. K. M., Fort Dodge
Wildberger, Mrs. W. C., Perry
Wilke, Mrs. F. A., Perry
Willett, Mrs. W. J., Manchester
Wilson, Mrs. F. L., Sioux City
Wilson, Mrs. F. W., Jr., Sioux City
Winninger, Mrs. L. T., Waterloo
Winters, Mrs. F. D., Burlington
Wirsig, Mrs. A. O., Shenandoah
Wirtz, Mrs. D. C., Des Moines
Wise, Mrs. J. H., Cherokee
Wolfe, Mrs. O. R., Marshalltown
Wolfe, Mrs. R. M., Marshalltown
Wolfe, Mrs. W. C., Ottumwa
Wolpert, Mrs. P. L., Onawa
Wolters, Mrs. D. E., Estherville
Woodard, Mrs. F. O., Des Moines
Woodburn, Mrs. C. C., Des Moines
Woodward, Mrs. A. W., Waterloo
Woodward, Mrs. L. R., Mason City
Wooters, Mrs. R. C., Des Moines
Wormhoudt, Mrs. H. L., Ottumwa
Worrell, Mrs. J. T., Keosauqua
Wright, Mrs. D. W., Decorah

York, Mrs. D. L., Creston
Young, Mrs. J. J., Clinton
Young, Mrs. R. A., Clarion
Yugend, Mrs. S. F., Indianola

Zager, Mrs. L. L., Waterloo
Zelinskas, Mrs. Leonard, Dubuque
Zoeckler, Mrs. S. J., Des Moines

* Deceased

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Mrs. M. N. Voldeng, Independence....1929
*Mrs. E. L. Bower, Guthrie Center....1930
*Mrs. Channing Smith, Granger....1931
*Mrs. P. M. McLaughlin, Sioux City....1932
Mrs. W. A. Seidler, Jamaica....1933
Mrs. J. A. Downing, Des Moines....1934
Mrs. M. C. Hennessy, Iowa City....1935
Mrs. C. A. Boice, Washington....1936
Mrs. S. E. Lincoln, Des Moines....1937
Mrs. D. W. Harman, Glenwood....1938
Mrs. E. A. Hanske, Bellevue....1939
Mrs. E. T. Warren, Stuart....1940
Mrs. W. R. Hornaday, Des Moines....1941
Mrs. F. W. Mulsow, Cedar Rapids....1942
Mrs. W. S. Reiley, Red Oak....1943
Mrs. J. C. Decker, Sioux City....1944
Mrs. S. S. Westly, Manly....1945
Mrs. M. H. Brinker, Jefferson....1946
Mrs. Fred Moore, Des Moines....1947
Mrs. A. G. Felter, Van Meter....1948
Mrs. R. M. Minkel (Lead, S. D.)....1949
Mrs. C. H. Mitchell, Cincinnati....1950
Mrs. H. W. Smith, Woodward....1951
*Mrs. L. A. Coffin, Farmington....1952
Mrs. E. B. Hoeven, Ottumwa....1953
Mrs. L. R. Hegg, Rock Valley....1954
Mrs. C. H. Flynn, Clarinda....1955
Mrs. D. H. King, Spencer....1956
Mrs. J. F. Gerken, Waterloo....1957

* Deceased

A Newsman Examines Doctors

JACK SHELLEY

DES MOINES

To A DEGREE, you know, a newsman and a doctor are alike. Both of us are usually in a hurry, feeling we have too much to do and too little time in which to do it. Both of us are slaves to the clock, and are convinced that there are too few of us to do the jobs that need to be done. Both of us—although I realize it takes a certain amount of temerity for a newsman to use the term in reference to his own group—are far more "professionals" than were our predecessors a few generations ago, for longer training and higher standards are required of us. Both doctors and newsmen today are using tools and technics that men in our respective lines of work 25 years ago would hardly have dared dream of. And we are alike in another way, too: It is absolutely vital to both of us that we *communicate*.

A news reporter's need to communicate, of course, is obvious. If he cannot "get through" to the reader or listener with the message he is trying to present, he has failed completely. And if his failure is readily apparent—through his inability to write understandably, or to broadcast with some clarity and ease of speech—he soon finds himself out of a job.

A physician's need to communicate may be a trifle less obvious, but it is none the less real. Indeed, he must communicate for two different purposes. First—and more importantly—communication between doctor and patient is a prerequisite to any effective therapy. The doctor must elicit information from the patient which will aid him in diagnosing the case. Then he must establish a frank and understanding relationship with the patient so that the two of them can work as partners throughout the indicated treatment. This sort of communication, I am sure, often requires no little skill, and on it must depend much of the success of a physician's practice. Shortly, I hope to give you a report which may serve to underline that fact.

But there is a *second* use which doctors must make of communication. Individually and through their professional societies, they must inform and hold the confidence of the general public. This is the field of public relations.

MEDICAL RADIO-PRESS CODE OF COOPERATION

Generally speaking, I believe, medical doctors in Iowa, through their Society, have improved their public relations in recent years. Most of us who are reporters of the daily news—whether by means of newspapers or radio and television—think a significant milestone was passed several years ago when your Society and the hospital group framed a "Code of Cooperation" with representatives of the press and radio. That Code bore directly on most of the occasional causes for friction and misunderstanding as newsmen tried to report on events in the public domain which involved doctors and their patients. It stands today as the best document of its kind that I know of, and jointly we may take some pride in knowing that the Iowa Code of Cooperation was a pioneer in its field and was widely hailed throughout the country.

A good many years have passed, however, since the adoption of the Iowa Code, and at a district meeting of Hospital Association people in Des Moines a few months ago, the newsmen, doctors and hospital administrators present were all startled to find that many hospital employees didn't even know of the Code's existence. The reason was obvious. The turnover of personnel had been rapid, and new people hadn't been told of the Code and its provisions when they joined hospital staffs. Much the same sort of thing may be occurring among physicians, but your State Society has recently reprinted and reissued the Code of Cooperation, and I hope each of you will secure a copy or two for your own perusal and to put into the hands of physicians coming to your respective towns, either from medical school or from outside the state. I recommend strongly that you do so, for I think you'll find the Code is eminently fair to all of us, on both sides of the reporting fence. And I think I can assure you that if you will adhere to the provisions of that Code, 99 per cent of your difficulties with news reporters in cases where the illnesses or injuries of your patients are involved, may be resolved.

A PUBLIC OPINION SURVEY

Frankly, however, I don't think the major public relations problem of physicians today concerns their relations with news reporters. And I don't think its solution depends upon how effectively the public relations men of the Iowa Society or of the American Medical Association do their jobs. I think your principal communications task—now, as it always has been—is that of giving your patients a favorable impression of yourselves. How you as individuals—enough individuals to add up, in their eyes, to a recognizable, classifiable group—measure up in the eyes of your patients will determine in the long run what the public thinks of the medical profession. Each of you, whether he likes it or not, is a walking advertisement for the medical profession, and to the degree that each one of you is respected, trusted and admired—or

Mr. Shelley is news manager of radio and television stations WHO and WHO-TV.

vice versa—so will the "image" of modern American medicine in the public's mind be improved or diminished.

With those ideas in mind, I took the liberty, before preparing these remarks, of running a small and admittedly somewhat unscientific survey. I am no rival of Dr. Gallup either in resources or in statistical training, and I make no claims for the results I secured, beyond that you will find them interesting, occasionally amusing, sometimes exasperating and sometimes thought-provoking.

I got in touch with 33 news reporters in 33 different Iowa towns and cities scattered more or less at random around the state. Predominantly, those reporters were located in what we would call "small towns," which are so typical of Iowa, but several were in the larger cities, too. I asked each of those 33 reporters to seek out at random five persons, attempting to obtain a variety of ages, educational backgrounds and economic situations, and to include both women and men in their samplings. I told them specifically *not* to direct their questions to doctors, nurses or other persons directly connected with the medical profession. The respondents were to be assured that their names would not be used in any way. In fact, they were told that even the towns from which specific answers came would not be listed in my report.

The response was not complete, and I guess nobody ever gets a complete response in a survey of this type. But from the 33 interviewers I did get 156 individual responses, and in general the persons questioned represented pretty widely separated strata of their communities, from housewives to bankers. Here, now, are tabulations of some of their answers. Please remember that the replies don't always total 156, for in some instances there were people who expressed no opinion. Fortunately, however, that number was small.

1. *What do you think of medical doctors generally? Would you say that your opinion of them is (1) High; (2) Average; or (3) Low?* Eighty-nine per cent of the 155 persons who answered said they had a generally "high" opinion of medical doctors. Sixty-four said their opinion was "average." Only two said they had a "low" opinion of M.D.'s, and only one said he didn't want to express an opinion at all. It seems to me that you rated pretty well on that one.

2. *Do you think doctors are (1) Overpaid; (2) Adequately paid; or (3) Underpaid?* Forty-five of the 151 persons who chose to answer this question said they thought M.D.'s are "overpaid." But 104 —more than twice as many—said they thought doctors are just "adequately paid." On the other hand, only two persons thought you are "underpaid," and five expressed no opinion.

3. *Do you have any particular criticism of the medical doctors you know? If so, what is it?* Of course I can't give you a numerical report on the answers to that question, except to say that 62 people had no criticism at all to cite. Of the 94 who did list criticisms, there naturally was a wide variety of complaints. Some of them are obviously captious or uninformed criticisms, but others were repeated often enough to warrant your consideration, if only on the ground that they are in the minds of enough people that they may be parts of the "image" of your profession.

The one criticism which cropped up most frequently—indeed, it was repeated over and over again, almost like a theme—was that you have seemed unwilling to give enough of your time to an individual patient's special case.

I imagine that there are a great many answers which you should like to make—including the observation that some patients would like a doctor to do nothing else but tend their ills. Nevertheless, a study of these replies makes me think that you must constantly find yourselves disadvantageously compared with the old picture of the family doctor, beard and all, who sat up all night holding the hand of the fevered little girl. And unless I am mistaken, that picture is the one which the medical profession has campaigned to get the public to accept as the ideal of the personal relation between doctor and patient. If I am right, you may possibly have helped to create a desire in some patients for more personal attention than they can logically expect.

At any rate, here are some of the actual replies to the question: "Too busy; don't give enough time to individual patients; keep them waiting too long in their offices." "They try to spread themselves too thin." "Not enough interest; always in a hurry." "Very impersonal." Several people complained of their inability to get doctors to call at their homes, "especially at night." Typically, they said, "You have to be dying to get one out at night on a house call."

A close second in frequency were complaints that doctors don't tell their patients enough about their ailments. Here are some quotations: "Most of them seem to feel the patient and his family are not entitled to know anything about his illness, his condition, or the why's and wherefore's of the course of treatment." "Some do not have the respect for their patients' intelligence that they expect the patients to have for theirs." "They don't always tell you the whole truth about the seriousness of your particular ailment." "They try to see too many patients each hour." "Giving diagnoses by telephone." "They put too much faith in a shot of penicillin."

And though, as I say, there doubtless are some highly acceptable explanations that you can make in response to these criticisms, and though I am sure that most of you are working to the very limit of your capacities, I think you will agree with me that there is a tone of urgency in two comments which I shall now quote: "Very few doctors take the time to make a person feel like their illness is *important.* They could take more time to discuss it with them, and tell them what is wrong, in the average person's language." "Many have

strayed from the path of dedication. There's too much hurry on to the next patient—giving you a pill when you need a time to *talk*."

FEES AND OVERUTILIZATION OF INSURANCE

As could have been expected, there were some complaints about what patients had thought were excessive charges, but it is rather remarkable that criticisms of this kind ran far behind numerically. Most people complained that doctors weren't sufficiently interested in *them*. "Too independent; too aloof"—that kind of complaint came far more often than did the one about costs.

In the area of costs, however, there were these comments: "They are more interested in their bills and their standing in the community, and less in their patients' welfare." "They charge too much for office, house or hospital calls in proportion to the time given." "When they make hospital calls, they charge the same to the patients whether the doctors make one or six calls on patients in the same hospital at that time."

And there were some gripes about "over-hospitalization." I quote: "They place minor cases in the hospital. This saves house calls, but it is sending hospital insurance up until it will soon be prohibitive." There were at least three criticisms of this kind. The strongest of them read this way: "Many of them are gouging on Blue Cross and other types of insurance, causing health and hospital insurance rates to increase to a tragic height." Another individual complained of higher fees for insured cases than for uninsured ones.

MISCELLANEOUS COMPLAINTS

I think you will be gratified, however, to know that there were very few doubts in the minds of the people questioned about your general competence as physicians. The following were typical of those few: "Too free use of antibiotics." "Failure to diagnose correctly, and using new, potent drugs too generally, before proper knowledge of side-effects." And there was this rather acid little comment: "So many doctors pass out the same pills for all different cases. I suspect the pills as having the same value as aspirins—although they cost more."

Then, there were a couple of somewhat offbeat criticisms. One respondent primly noted that she did not approve doctors' drinking. And another, in a tone of some horror, reported, "I know a doctor who wears sports shirts to his office." In her books, obviously, such a man is not to be trusted.

THE PUBLIC'S IDEAS ON PHYSICIAN DISTRIBUTION

4. *How about the number of doctors now available to the public? In your opinion, are there (1) Too many; (2) Just about enough; or (3) Too Few?* There were 154 persons who answered this question. A majority of them (95) said there are now too few doctors. Fifty-seven were willing to grant that there are "just about enough," and only two said there are "too many." Generally speaking, the smaller the town, the less likely was the respondent to say that there are enough doctors available.

5. *What one thing do you respect most about the medical profession?* Here again, not everyone answered, but 119 of the persons questioned took the trouble to list at least one thing they highly admired in your profession. And there was a high correlation between what they admired in doctors and what they had criticized physicians of their acquaintance for failing to exhibit. No fewer than 57 of the respondents cited the doctor's devotion to his professional duty as the thing they admired the most in medicine. They phrased it variously, calling it "his willingness to be on call to serve humanity," "his attitude toward his patients," or "his reputation for being a hard worker." One person summed it up in this way: "The thing I admire most about doctors is their *patience* with their *patients*." Another volunteered a tribute, obviously with a particular doctor in mind, which I should like to repeat in full. "Each person is treated with the utmost courtesy, as if you were the *only* patient the doctor ever had. He never hurries." Put yourself into the patient's shoes. Wouldn't you like to be attended by a doctor who gave the impression that his one aim in life was to be of service to you? No doubt he'd be the world's greatest diplomat, he'd be almost ready to retire or he'd be on the point of going broke, but, he'd earn your undying gratitude!

Next most frequently reported among things admired in doctors—18 mentions—was the amount of training the physician acquires before he is allowed to practice. There seems little doubt that the public is aware of the long, hard grind a young man must endure before he can hang out his shingle. As one person put it, though not in very elegant language, "I admire the fact that they had guts enough to go to school as long as they did."

In third place, with 14 mentions, was respect for your professional competence. These answers, too, correlated well with the lack of criticisms on that point under Question 3. As one fellow said, "They seem to know what they're talking about."

Ranking next, with 13 mentions, was admiration for your professional ethics. There was a little tendency, however, to qualify this by adding "among older doctors." Seven persons singled out the doctor's ability to keep secret his knowledge of the patient's personal affairs. Mention was also made of the doctor's willingness to keep studying more about medicine, of medical research and its results, of honest diagnoses, and of equal treatment for all patients, regardless of ability to pay. One person paid tribute to "their tolerance for human beings," and another said he prized "their interest in the welfare of the community."

But there were some folks who couldn't resist sinking a shaft or two when asked what they admired most about doctors. Said one: "I admire their income—most of them are wealthy." Another

said he admired doctors' ability to cling together as a unionized group, "almost putting the AFL-CIO to shame." And a third said the thing he admired most about doctors was what he called "their ability to buy all the best farm land."

By the way, two of the respondents—women, I think—said the thing they admired most about you doctors is that you "don't get excited in an emergency."

SELECTION OF FAMILY DOCTORS

6. *How did you go about selecting a doctor for your family?* There were several striking features about the replies to this question. First, out of 155 respondents, 17 said they had no physician whom they considered their family doctor. Somehow, this was a larger number than I had expected. Furthermore, 12 others said they had had no opportunity to choose, for there was only one doctor in their community. Eight others said they chose their doctor because he was nearest to their homes, which may have been just another way of saying the same thing. Perhaps we can interpret these findings as indicating that about one-fourth of the respondents had not chosen their physician at all. Circumstances had dictated their going to a particular man, unless they were willing to travel a considerable distance.

But among those who did have a choice, there was one overwhelming similarity: they followed in someone's footsteps in making a choice, or really made no choice at all. Most family doctors, for this group of people at least, had been more or less "inherited." Often the respondent had gone to the same doctor since he or she was a child. One of them replied, "He's been handed down through the years." Another commented frankly, "I just followed in my family's footsteps.—Otherwise I think you'd pick 'em like you'd pick a can of beans." And one fellow replied, a shade sadly I thought, "My wife selected our doctor." Family contacts were responsible for the choice of a family doctor in 26 cases. Next in order (20 replies) said the choice had been made on the basis of what was loosely called the physician's "general reputation," through "local talk," and on the grounds of the doctor's general, community or church standing. Close behind (19 answers) were those who made their choice on the advice of friends. Eleven said they picked a man because they liked his looks and personality; seven had taken the recommendation of another doctor; and the others gave a wide scattering of replies, a few to a category. Two people said they chose their doctors because they were willing to make night calls. One said it took 15 telephone calls to find such a physician, and when she found him, she stuck with him. Then there was the person—just one—who had chosen his family doctor after he heard him make a speech. And there was another who said his doctor had been "recommended by my boss's wife." He, no doubt, is one of those whom we must regard as having had no real choice.

WHAT THE PUBLIC REGARDS AS YOUR MAJOR PROBLEM

7. *What do you consider the biggest problem facing the medical profession today?* By far the greatest number of people (42) listed "too few doctors." Nine of those 42 added that they considered the shortage of general practitioners particularly acute. About half as many (22) thought that your major task is the conquering of some of the major killers as yet untamed. Cancer and heart disease were named most often, although the common cold got a mention or two. Fifteen thought that "keeping up with research and new technics" is the doctor's biggest problem. Six listed the need for more hospitals, and three the need for more nurses.

If this little survey is reliable, the people of Iowa regard the rising costs of health care (15 mentions) and socialized medicine (24 mentions) as second only to the need for more doctors. And when one examines their remarks on rising health care costs and socialized medicine, he comes to the conclusion that the people are talking about two sides of the same coin.

Almost unanimously, those who mentioned socialized medicine indicated their opposition to it. But—and this, it seems to me, is a point the medical profession should give the most serious kind of consideration—many of those answering felt the costs of lengthy hospitalization and medical care are so staggeringly high today that unless some other way is found to meet these costs, some form of governmental intervention may eventually result—even though they declared, in most cases, that it was the last thing they wanted to see happen.

I am sure that you will be interested in some of the respondents' ideas on how socialized medicine can be forestalled. One wrote: "Self-discipline within the profession is necessary—and soon—or there will be a public demand for relief from high medical costs, then socialized medicine. And this would be a national calamity!" Another answered: "Only the well-to-do can afford to go to the hospital any more. The public at large is becoming increasingly aware and resentful that protracted medical care, hospitalization, etc., is financially prohibitive." A third said: "The fact that their education is very expensive and requires 10 years or more of time does not, in my mind, justify the lavish living of many physicians, their expensive homes and cars. Such extravagances as these are not understood and accepted by the laity, and do much to encourage a trend toward socialized medicine."

There were a number of complaints that available hospital insurance today does not begin to meet the costs of long-term illness. One person commented, apparently on the basis of personal experience: "Three days in the hospital for a minor trouble—and $60 for drugs alone!" There

are many people in this state, of course, for whom $60 is still a week's wages. Another person surveyed commented he also saw in this a trend toward socialized medicine which, he asserted, "the profession is bringing upon itself." And another declared, "Unless they keep their fees at a reasonable level, they will drive people to support socialized medicine. They must police themselves in this respect." Still another said, "Cut out gouging on health insurance and other practices that are bringing socialized medicine closer to a reality."

And yet, throughout these answers there ran the recurrent theme: "We don't want socialized medicine!" And one man said he thought the big problem is what he called "the attempts of deadbeat quacks and socialists to socialize medicine." Another respondent summed it up in this way: "After all, our bodies are about the only thing not government-regulated now. Let's keep it that way!"

Of course some of the answers to this final question were brief and simple. One person, asked to name the biggest problem facing the medical profession today, replied in one word: "Hypochondriacs!"

SUMMARY

There, gentlemen, there are the results of my not-very-scientific efforts to find your "image" in the minds of Iowa people. I think my findings may demonstrate one thing: that the public, by and large, continues to set almost impossibly high standards of professional and personal conduct for you doctors. And I am sure you want the public to do just that! Moreover, I am sure that people expect each of you to communicate most effectively to them. As Dr. Rubin H. Flocks, of the S.U.I. College of Medicine, told a group of prospective medical students recently, "One of the dangers we must avoid is that of forgetting that the practice of medicine is more than a science—that it is a unique art, and a very personal and intimate one." Or as Dr. William Bean, of the same faculty, said, "Even the average physician can achieve nobility from an ambition no more exalted than that of being a *companion* to his patients—a little taller, a little stronger, a little wiser."

Yours is a profession of service, and of those among you who, as doctors, are indeed the tallest and the strongest and the wisest, surely it must be said, as the Greatest of Physicians once said of those who were to follow Him, "He who would be chief among you shall be the servant of all."

Heart Funds for SUI Researchers

Dr. John W. Eckstein, an assistant professor and Dr. William E. Connor, an instructor, both of the S.U.I. Department of Internal Medicine, have received awards totaling $14,600 to conduct research in Iowa on diseases of the heart and blood vessels, it was announce on July 3 by Dr. Herman J. Smith, of Des Moines, president of the Iowa Heart Association.

The awards were among 183 totaling $1,433,147 given to heart scientists throughout the country under the national research support program of the American Heart Association and its affiliates.

Of the Heart Fund contributions provided by the Iowa Heart Association to support the national program aimed at combating the cardiovascular disease, Dr. Smith emphasized that more than 50 per cent is allocated to research.

The Iowa scientists named above share in the largest group of fellowship awards made by the American Heart Association since it became a voluntary health agency 10 years ago. With the new awards, the total channeled into heart research during the past decade by the association and its affiliates stands at more than $31,000,000.

Dr. Eckstein's is one of 84 grants to established investigators. Grants of this sort provide five years of uninterrupted support to mature scientists conducting independent programs of research. Dr. Eckstein will conduct extensive studies in an effort to determine how the walls of the veins help move the blood back to the heart. With a better understanding of the mechanisms that govern the return of blood to the heart, researchers can hope to clarify such disorders as shock and congestive heart failure, Dr. Smith declared.

Dr. Connor is one of 34 scientists awarded Advanced Research Fellowships. Given usually for two years, these fellowships enable young heart scientists to obtain training in research methods under experienced guidance. Dr. Connor's studies are under the direction of Dr. Walter M. Kirkendall of Iowa City, chief of medical service at the Iowa City Veterans Administration Hospital.

Dr. Connor's work consists of some studies of a "clearing factor" that appears to remove fats from the blood stream, and also of blood coagulation in women (who are less susceptible than men to coronary disease), in an effort to shed light on the still unknown causes of atherosclerosis.

In addition to its participation in the national research program, Dr. Smith asserted that the Iowa Heart Association is maintaining its own research support activities under which a total of $51,155 has been appropriated to 15 Iowa Heart scientists.

These Iowa research funds, Dr. Smith concluded, are also a portion of the money raised in the state last February during the regular Heart Fund campaign.

Principal Actions at the San Francisco

AMA House of Delegates

The United Mine Workers of America Welfare and Retirement Fund, Social Security coverage for self-employed physicians, relations with voluntary health organizations, veterans' medical care, the Medicare program, the AMA Washington Office, the medical aspects of hypnosis and the advertising of over-the-counter medications were some of the variety of topics on which the AMA House of Delegates acted during its sessions in San Francisco, June 23-27.

New President-Elect. Dr. Louis M. Orr, an Orlando, Florida, urologist, was chosen unanimously as president-elect. In recent years, Dr. Orr has been vice-speaker of the AMA House of Delegates and chairman of the AMA Committee on Federal Medical Services. In June, 1959, he will succeed Dr. Gunnar Gundersen, of LaCrosse, Wisconsin, who became president of the AMA during the San Francisco meeting.

United Mine Workers. Despite the fact that a reference committee of the House concurred with a Board of Trustees opinion advising postponement for six months, the House of Delegates ordered the immediate implementation of two resolutions which had been adopted at the interim meeting in Seattle last December.

One of those resolutions ordered that "a broad educational program be instituted . . . to inform the general public, including beneficiaries of the [United Mine Workers of America Welfare and Retirement] Fund concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June." The other resolutions called for the appropriate AMA committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

Social Security Coverage. The House of Delegates adopted a resolution pointing out that "American physicians always have stood on the principle of security through personal initiative," and reaffirming unequivocal opposition to the compulsory inclusion of self-employed physicians in the Social Security system. It refused to order a national poll of physicians on that matter.

Voluntary Health Organizations. The AMA House of Delegates voted its approval and commendation of the principal voluntary health agencies, and asked the American Medical Research Foundation to take no action that would endanger their constructive activities, but recent newspaper stories have been incorrect in saying that the House voiced its approval of the step which some agencies have taken in withdrawing from joint fund-raising campaigns.

Veterans' Medical Care. The House of Delegates pointed out that about 75 per cent of the patients treated in V-A hospitals during 1957 had non-service-connected disabilities, and it urged Congress to correct that situation.

The Medicare Program. The House took the position that desired changes in the Medicare program can be accomplished through modification of implementing directives, and that new legislation on the subject is unnecessary. It reaffirmed its action of last year asserting that the question of including or not including a fee schedule in future contracts is a matter for the individual states to negotiate with the Defense Department, and it reaffirmed its belief that the Dependent Medical Care Act does not require fixed fee schedules and that using fee schedules would be more costly to the government than permitting doctors to charge their normal fees.

AMA Washington Office. The House of Delegates ordered an immediate survey and reevaluation of "the functions and effectiveness of the over-all AMA legislative system, including the Washington Office." Futhermore, it asked the Board of Trustees to make whatever changes that survey may reveal are necessary.

Medical Aspects of Hypnosis. A report by the Council on Mental Health saying that physicians and dentists "might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence" was approved and ordered published in J.A.M.A. The report vigorously condemned the use of hypnosis for entertainment purposes.

Over-the-Counter Medications. The House endorsed recommendations made by the AMA Public Relations Department that the AMA join in an expanded voluntary program coordinated by the National Better Business Bureau seeking to eliminate objectionable advertising of over-the-counter medicines, and that the AMA counsel with the National Better Business Bureau in setting up a physicians' advisory committee.

Scientific Articles

Atherosclerosis of the Abdominal Aorta

HERMAN J. SMITH, M.D.

DES MOINES

LONG BEFORE THE discovery of the circulation of the blood, the aorta engaged the attention of investigators. Galen described spontaneous and traumatic aneurysms 1,800 years ago; Fernelius, in 1542, noted the great increase in the incidence of aneurysms following the appearance of syphilis in Europe; Vesalius described dissecting aneurysm in 1557; and Morgagni recognized it as a pathologic entity in 1761.[1, 2]

Surgical correction of aortic defects by resection and grafting has become practical within the last decade. At the same time, the emphasis in aortic pathology has shifted from syphilitic to arteriosclerotic disease, and from the thorax to the abdomen. In 1905, Osler reported from Johns Hopkins that thoracic aneurysms outnumbered abdominal aneurysms ten to one,[3] but in more recent series,[4, 5] there has been a two-to-one predominance of abdominal lesions.

Atherosclerosis is, of course, the major villain in abdominal aortic disease. It plays a role in at least three lesions which involve the abdominal aorta and its bifurcation—dissection of the aorta, the Leriche syndrome and aneurysm.

DISSECTION OF THE AORTA

Dissection of the aorta—the so-called dissecting aneurysm—usually arises in the thoracic portion of the aorta, whether on the basis of idiopathic medial necrosis or atherosclerosis. Tears distal to the thoracic aorta were reported in only two of 84 cases from the Armed Forces Institute of Pathology,[6] one in the abdominal aorta and the other in a renal artery. However, dissection beginning in the thoracic aorta—particularly in the atherosclerotic type—may extend into the abdominal aorta.[7]

Most cases of aortic dissection are fatal within two weeks. Surgical repair by construction of a double-barreled aorta has been successfully attempted.[20]

THE LERICHE SYNDROME

In 1940 and again in 1948, Leriche[12] described a condition which he called thrombotic obliteration of the aortic bifurcation. It has since had a variety of designations, but the eponymic label "the Leriche syndrome" is now widely used.

As originally described, it occurs usually in young adult males; the youngest in Leriche's series was 29 years of age. The characteristic complaints were fatigue in the lower extremities and impotence. Leriche thought the impotence was due to arteritis high in the ileofemoral trunk and vasospasm in the major pelvic arteries. He noted that it sometimes disappeared following bilateral lumbar sympathetic ganglionectomy. The physical findings which he emphasized were "global atrophy" of the lower extremities, pallor of the legs and feet even on standing, and absence of trophic changes in the skin and nails.

Pathogenesis of the condition is not clear. Saddle embolus has been thought to lead to subsequent thrombotic occlusion,[11] and apparently was a factor in one of our cases. Reich,[1] however, observed that victims are, on the average, 20 years older than those suffering from saddle embolus and that embolus more commonly occurs in females with rheumatic heart disease. Males predominate among patients with the Leriche syndrome. Further, thrombotic obliteration is usually gradual, and often is symptomless in onset, in contrast to the dramatic episode usually associated with embolization.

Kirklin[13] described narrowing of the lumen by thickening of both intima and media, with subsequent thrombus development. Theis[14] felt that the pathogenesis involved atheromatous and calcific deposits which gradually narrow the aortic lumen, followed by rupture of the intima and thrombus formation. Reich[1] pointed out that the thrombotic process could begin in one of the iliac arteries and progress upstream. Luetic aortitis and pressure on

the aorta by a tumor or vertebral osteophyte have also been listed as possible causes of thrombosis.[11]

Intermittent claudication is a characteristic complaint. It commonly involves the thighs, buttocks, hips and lumbar region. Leriche thought that the back pain of which many patients complain might be due to the intensive peri-aortitis he noted in some of his cases. Many observers have echoed his notation that trophic changes in the skin and nails are rare, despite global atrophy and absent or diminished pulsatile circulation. This phenomenon is apparently due to the gradual development of the obstruction, permitting time for collateral circulation to appear. Because of hip pain, muscle atrophy and impotence, with normal skin color and an absence of trophic changes, the patient may be thought to have a neurologic disorder.[16]

The prognosis may be surprisingly good not only for the continuation of life but even for the preservation of the lower limbs. Average duration of symptoms at the time of diagnosis is given as three years,[14] and survival up to 11 years has been reported.[11]

Extension or propagation of the thrombotic occlusion, however, often forces the therapist's hand. Downward extension may occlude the collateral circulation to the lower extremities, and gangrene soon follows.[15] Proximal extension of the occlusion is apt to be an even more sudden and dramatic episode, with death from involvement of the renal or mesenteric arteries.

If surgical intervention is required, the treatment of choice now appears to be resection and grafting, with bilateral lumbar sympathectomy.[13] If the iliac arteries are completely occluded down to the inguinal ligament, however, the surgeon may have to be content with doing nothing, with a sympathectomy or with *en bloc* removal of the thrombus and endarterium.[17] Successful resection and graft may produce clinical cure—indeed even relief of impotence—but fatal hemorrhage from disintegration of the graft has occurred as long as three months after surgery.[18]

Before surgical correction is undertaken, an aortogram is generally necessary to show location and extent of the obstruction, and this is not always an innocuous procedure, as witnessed by recent reports of malpractice actions and substantial awards of damages.

A 57-year-old man with known auricular fibrillation and epilepsy had a history of intermittent claudication 10 years earlier. One month after a herniorrhaphy, he gradually developed symptoms of vascular occlusion in the right leg. He had no oscillometric readings in either lower extremity, and the aortogram showed a filling defect extending from below the renal arteries to the aortic bifurcation.

At operation, the aorta was occluded by a palpable thrombus and was not attacked surgically. Bilateral lumbar sympathectomy was done. Death occurred six days later. Autopsy showed only minimal atheromatous changes in the aorta. There were rheumatic aortic and mitral valvulitis, saddle embolus with massive thrombus formation, and cerebral and peripheral embolization.

Here was a case of aortic occlusion thought to be arteriosclerotic but shown at autopsy to be embolic in origin. In contrast, a 53-year-old male with hemiparesis as the result of a cerebrovascular accident had previously undergone amputation of the left leg, with a diagnosis of embolus to the left iliac artery. At his last previous admission, his diagnosis had been saddle embolus. Aortography showed complete obstruction of the right common iliac artery and almost complete obstruction of the left. Autopsy showed extreme atherosclerosis of the aorta, with plaques, ulceration and thrombosis of the abdominal aorta, and a recent cerebral hemorrhage.

ANEURYSM

Aneurysm, the third abdominal aortic lesion, is increasing in incidence as the age of our population increases. It is of interest, too, in that it appears not to be uncommon among physicians. In Des Moines, it has been responsible for the deaths of at least four doctors of medicine within the last six years.

Abdominal aortic aneurysm has been reported as the result not only of syphilis but tuberculosis[19] and trauma,[2, 20] the latter including such oddities as pressure of a carpenter's brace and bit. The common cause, however, is arteriosclerosis. The syphilitic aneurysm is usually saccular and occurs higher in the aorta.[21] The arteriosclerotic aneurysm is usually fusiform. It characteristically begins rather abruptly just below the renal arteries and extends downward to the bifurcation.[22] Dilatation is ordinarily eccentric, with elongation and thinning of the vessel wall. Dissection of blood into the media, deposition of fibrin, intravascular thrombosis and calcification of the wall[23] are common.

Symptoms may vary from none at all to a dramatic intra-abdominal catastrophe. Diagnosis, once merely an intellectual exercise, has assumed some urgency since definitive therapy by resection and grafting was first reported six years ago.[24]

Without operation, half the patients are dead in two years from the time of diagnosis,[25] and 80 per cent are dead within five years.[23] The urgency is underscored by the fact that hours or weeks may have elapsed between the premonitory leaking of the aneurysm and its fatal rupture,[26] and that surgical correction has been successful even after the aneurysm has perforated.[27]

Pain is the most common symptom. It may be in the abdomen, in the back or in both. It has been variously attributed to stretching of the parietal peritoneum by the aneurysm, to the inflammatory response to leakage of blood, and to pressure on nerves by the enlarging hematoma. As in one of

our own cases, the picture may be that of kidney disease, apparently due to retroperitoneal dissection of the hematoma.[9] A mass in the loin, sudden flank pain, hematuria, obliteration of the psoas shadow and impairment of the excretory urogram may further confuse the picture.

Gastrointestinal hemorrhage[28] may be the presenting sign. The duodenum is the usual site of rupture into the digestive tract. Nausea and vomiting may precede the fatal rupture as a result of compression of the third portion of the duodenum by the aneurysm and its accompanying hematoma.[30] Erosion of the spine and transection of the spinal cord have been reported,[28] but pain from vertebral erosion is said to be rare in non-syphilitic aneurysms.[31]

Physical signs, like symptoms, may be absent until rupture is imminent. The deeply seated aneurysm may not be suspected until it is far advanced,[32] and fusiform enlargements often are not easily palpable. It has been said that in the absence of obesity a sac must be at least 4 cm. in diameter to be readily palpable, but that the danger of rupture is minimal with dilatations less than 6 or 7 cm. in diameter.[31] Crane,[33] reviewing 44 autopsy protocols, reported that of patients in whom the aneurysms measured 6 cm. or less in diameter, only 4 per cent died of rupture, whereas of those in whom the aneurysms measured 7 cm. or more in diameter, the incidence of rupture was 82 per cent.

A pulsatile abdominal tumor always suggests the diagnosis of aneurysm. However, it is not always easy to determine whether the pulsation is intrinsic or transmitted. Anemia, hyperthyroidism, aortic regurgitation or nervousness may cause an axial throbbing of the aorta without true lateral expansile pulsation. Examination in the knee-chest position may cause a tumor to fall away from the aorta and lose its apparent pulsation.

Because abdominal aortic aneurysm occurs in older patients and because it is often associated with arteriosclerotic lesions elsewhere in the body, many of these patients succumb to coronary or cerebrovascular accidents before the aneurysm ruptures. On this basis, Crane[33] suggests that patients with small aneurysms be treated expectantly, with warning as to the significance of abdominal or back pain and with quarterly physical and x-ray examinations.

Before the era of resection and grafting, Estes[34] reported that 52 per cent of 102 cases were dead in three years and 81 per cent were dead in five years. Rupture of the aneurysm is the fatal event in 60 per cent of the deaths. At the opposite extreme, a survival rate of 75 per cent is reported in one series of 20 operated cases,[22] and a salvage of 64 per cent was achieved in 25 cases treated by surgery after rupture had begun.[35]

The aneurysm may rupture retroperitoneally, into the gastrointestinal tract or into the inferior vena cava, with production of an arteriovenous fistula. Retroperitoneal leaking is accompanied by fever, by leukocytosis and often by an unexplained drop in the hemoglobin and erythrocyte count. Tamponade effect from the firm retroperitoneal tissues may account for the slow bleeding in some cases and may explain why successful resection and homograft have been carried out nine days after the initial hemorrhage.[27] As technics have improved, successful grafts have been placed even above the level of the renal arteries. There, problems relating to the critical periods of hepatic and renal anoxia are encountered.[36]

CASES

As already indicated, elderly physicians seem particularly vulnerable to this disease. One of our own physician patients was 75 years of age. Three months before his death, while on vacation, he was hospitalized briefly with diarrhea, weakness and vertigo, but no definite diagnosis was made. On his return home, his blood pressure was 198/98 mm. Hg., and there was a large, pulsating abdominal aorta. The patient was conscious of this pulsation. Six weeks later, he was hospitalized with extreme urgency and dysuria. He was thought to have prostatism, but only 50 cc. of residual urine was obtained. He rapidly developed left hemiplegia, and died the next day.

Autopsy showed an abdominal aortic aneurysm the size of an adult's fist, with a 2.5 cm. tear on its ventral surface. There was a large retroperitoneal hemorrhage. In addition, the brain showed two areas of softening on the right side, due to cerebral thrombosis.

This association of ruptured aneurysm and cerebral thrombosis has been noted in many autopsy protocols. Whether it is due to the generalized arteriosclerosis in these patients or to the drop in blood pressure associated with leakage from the aneurysm is problematical.

Our second physician was 77 years of age. He gave a 12-year history of duodenal ulcer and a two-year history of hypertension. He presented himself in congestive heart failure, with a blood pressure of 240/128 mm. Hg. Nothing abnormal was noted about his abdomen or his femoral pulses. He responded well to digitalization for two months; then he developed increasing mental confusion. He was hospitalized and improved gradually until eight days after admission, when he developed severe right upper quadrant pain, shock and coma. A vague mass was felt in the abdomen, and the surgical consultant thought this was probably a ruptured aneurysm, rather than the perforation of an ulcer. Death occurred two hours later.

Autopsy showed no evidence of ulcer. There was a 2,000 c.c. retroperitoneal hemorrhage. There was a 10 x 6 cm. aneurysm of the abdominal aorta, and it had ruptured posteriorly. The cerebral vessels showed considerable atherosclerosis.

In contrast, a 71-year-old male with a long his-

tory of chest pain and dyspnea was admitted to the hospital in coma and died within a few hours. He was found to have had a 14 x 6 cm. aneurysm of the abdominal aorta, but there was no evidence of leakage. The lumen of the aneurysm was less than 1 cm. in diameter due to an extensive thickening of the wall that had resulted from the deposition of brown, atheromatous "mud" between the layers of the intima and muscularis. The cause of death was extreme calcific stenosis of the aortic valve.

SUMMARY

Atherosclerosis of the abdominal aorta has been reviewed in relation to dissection of the aorta, the Leriche syndrome and abdominal aortic aneurysm.

REFERENCES

1. Reich, Nathaniel E.: Diseases of the Aorta: Diagnosis and Treatment. New York City, The Macmillan Company, 1949.
2. Jump, H. D., and Leaman, W. G., Jr.: Abdominal aortic aneurysm; its incidence, diagnosis, complications and treatment, with report of case showing terminal rupture of aorta posterior to aneurysmal sac. Internat. Clin., **1**:166-179, (Mar.) 1939.
3. Osler, W.: Aneurism of abdominal aorta. Lancet, **2**:1089-1096, (Oct. 14) 1905.
4. Maniglia, R., and Gregory, J. E.: Increasing incidence of arteriosclerotic aortic aneurysms; analysis of 6,000 autopsies. AMA Arch. Path., **54**:298-305, (Sept.) 1952.
5. Roberts, B., Danielson, G., and Blakemore, W. S.: Aortic aneurysm. Report of 101 cases. Circulation, **15**:483-491, (Apr.) 1957.
6. Gore, I., and Seiwart, V. J.: Dissecting aneurysm of aorta; pathologic aspects; analysis of 85 fatal cases. AMA Arch. Path., **53**:121-141, (Feb.) 1952.
7. Lodwick, G. S.: Dissecting aneurysms of thoracic and abdominal aorta; report of 6 cases, with discussion of roentgenologic findings and pathologic changes. Am. J. Roentgenol., **69**:907-925, (June) 1953.
8. Green, R., and Saphir, O.: Ecchymosis of abdominal wall as early diagnostic sign of dissecting aneurysm of aorta. Am. J. M. Sc., **216**:24-26, (July) 1948.
9. Kontoff, H. A., and Sears, B. R.: Dissecting aneurysm of abdominal aorta simulating renal disease; case diagnosed ante-mortem. J. Urol., **65**:364-367, (Mar.) 1951.
10. DeBakey, M. E., Cooley, D. A., and Creech, O., Jr.: Surgical considerations of dissecting aneurysm of aorta. Ann. Surg., **142**:586-612, (Oct.) 1955.
11. Burt, C. C., Learmonth, J., and Richards, R. L.: On occlusion of abdominal aorta. Edinburgh M. J., **59**:65-93, (Feb.); 113-142, (Mar.) 1952.
12. Leriche, R., and Morel, A.: Syndrome of thrombotic obliteration of aortic bifurcation. Ann. Surg., **127**:193-206, (Feb.) 1948.
13. Kirklin, J. W., and Ellis, F. L.: Occlusive disease of terminal aorta. S. Clin. North America, **35**:947-951, (Aug.) 1955.
14. Theis, F. V.: Thrombosis of terminal aorta. Surg. Gynec. & Obst., **95**:505-511, (Oct.) 1952.
15. Heinzen, B. R., Dunbar, H. S., and Parsons, H.: Thrombosis of abdominal aorta and iliac arteries. Ann. Surg **139**:-148-157, (Feb.) 1954.
16. Johnson, J. K.: Ascending thrombosis of abdominal aorta as fatal complication of Leriche's syndrome. AMA Arch. Surg., **69**:663-668, (Nov.) 1954.
17. Albanese, A. A., Otero, E., and Grienfeld, D.: Thromboendarterectomy in chronic aorto-iliac obstruction (Leriche's syndrome). Angiology, **5**:15-20, (Feb.) 1954.
18. Brown, K. W., Grant, W. G., Key, J. A., Wilson, D. R., and Bigelow, W. G.: Chronic aorto-iliac obstruction. Canad. M.A.J., **77**:747-752, (Oct. 15) 1957.
19. Herndon, J. H., Galt, J., and Austin, D. J.: Ruptured tuberculous false aneurysm of abdominal aorta; report of case with resection of aneurysm and survival for 6 days. Texas J. Med., **48**:336-338, (June) 1952.
20. Bahnson, H. T.: Excision of arteriosclerotic aneurysm of abdominal aorta. Geriatrics, **9**:263-271, (June) 1954.
21. Betts, J. W., and Rowlands, B. C.: Leaking abdominal aneurysms; two unusual cases. Brit. M. J., **1**:73-75, (Jan. 10) 1953.
22. Boyd, D. P., and Bartels, C. C.: Surgical treatment of aneurysms of abdominal aorta. Postgrad. Med., **21**:477-484, (May) 1957.
23. Ellis, F. H., Clagett, O. H., and Kirklin, J. W.: Symposium on cardiac and vascular surgery; aneurysms of aorta. S. Clin. North America, **35**:953-963, (Aug.) 1955.
24. Dubost, C., Allary, M., and Oeconomos, N.: Resection of aneurysm of abdominal aorta; reestablishment of continuity by preserved human arterial graft, with results after 5 months. AMA Arch. Surg., **64**:405-408, (Mar.) 1952.
25. DeBakey, M. E., and Cooley, D. A.: Surgical treatment of aneurysm of abdominal aorta by resection and restoration of continuity with homograft. Surg. Gynec. & Obst., **97**:257-266, (Sept.) 1953.
26. Kinnear, N.: Symposium on abdominal aortic aneurysm. Irish J. Med. Sc., 376:158-163, (Apr.) 1957.
27. Cooley, D. A., and DeBakey, M. E.: Ruptured aneurysms of abdominal aorta. Excision and homograft replacement. Postgrad. Med., **16**:334-342, (Oct.) 1954.
28. Hirschowitz, B. I., and Bagg, L.: Aneurysm of abdominal aorta, with report of 4 unusual cases. Gastroenterology, **18**:361-376, (July) 1951.
29. Hirst, A. E., Jr., and Affeldt, J.: Abdominal aortic aneurysm with rupture into duodenum; report of 8 cases. Gastroenterology, **17**:504-514, (Apr.) 1951.
30. Javid, H., Dye, W. S., Grove, W. J., and Julian, O. C.: Resection of ruptured aneurysms of abdominal aorta. Ann. Surg., **142**:613-623, (Oct.) 1955.
31. Barratt-Boyes, G. B.: Symptomatology and prognosis of abdominal aortic aneurysm. Lancet, **2**:716-720, (Oct. 12) 1957.
32. Bigger, I. A.: Surgical treatment of aneurysm of abdominal aorta; review of literature and report of two cases, one apparently successful. Ann. Surg., **112**:879-894, (Nov.) 1940.
33. Crane, C.: Arteriosclerotic aneurysm of abdominal aorta; some pathological and clinical correlations. New England J. Med., **253**:954-958, (Dec. 1) 1955.
34. Estes, J. E.: Abdominal aortic aneurysm; study of 102 cases. Circulation, **2**:258-264, (Aug.) 1950.
35. Cooley, D. A., DeBakey, M. E., and Creech, O., Jr.: Surgical treatment of aortic aneurysms. Am. Surg., **22**:1043-1051, (Nov.) 1956.
36. DeBakey, M. E., Creech, O., Jr., and Morris, G. C., Jr.: Aneurysm of thoracoabdominal aorta involving celiac, superior mesenteric, and renal arteries. Report of 4 cases treated by resection and homograft replacement. Ann. Surg., **144**:-549-573, (Oct.) 1956.

POLIO NOT YET WHIPPED!

Nearly forty million Americans under forty years of age have had no vaccine and over forty million have not completed their series of three doses. Polio virus is still widespread. An epidemic may break out any time, any place, because the vaccine protects only those who receive it.

The Surgery of Arteriosclerosis

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Arteriosclerosis for years was accepted as an integral part of the human heritage and as a constant companion of individuals in the twilight of life. Though basically sound, that philosophy was unwarrantedly pessimistic, for it led both clinicians and researchers to despair of finding any means of combatting it effectively. Only within the last few decades have the first significant discoveries been made in this area, but now it appears that therapy in arteriosclerosis constitutes a virtually limitless frontier.

Encompassing the voluminous research that has recently taken place in this field is too great a task for me to attempt in this presentation. Rather, I shall limit myself to a survey of recent advances in the diagnosis and treatment of the commoner forms of arteriosclerosis.

Although the vascular tree of every organ system in the human anatomy is subject to degenerative change, the commonest clinical manifestions are centered in the cardio-vascular-renal complex. To date, our most fruitful efforts have been those designed to investigate the vascular component of this triad.

The surgical treatment of arteriosclerosis involving the major arteries has added significantly to our knowledge of the disease as a whole, and in addition has provided us a new and useful therapeutic weapon. Until the cause and the prevention of arteriosclerosis become known, the surgical approach will doubtless remain of paramount importance.

SYSTEMIC AND LOCALIZED FORMS OF THE DISEASE

Surgery in arteriosclerosis has evolved as a by-product of our increasing knowledge of the clinical manifestations of the disease. Until recently, it was supposed that arteriosclerosis must always be a general condition, with the local changes a quantitative index of its severity. This concept of pan-systemic involvement logically precluded any direct therapeutic approach. The accuracy of this assumption was first questioned when a truly segmental form of the disease was recognized. Numerous examples of crippling and lethal forms of vascular sclerosis were encountered in patients who were free of generalized involvement. It was further observed that this type of limited distribution was usually confined to the larger vessels and that it usually occurred in persons between 40 and 65 years of age. Although some of these patients had basic metabolic errors such as familial hyperlipemia, the majority satisfied the classic criteria of arteriosclerosis.

At the present time, it is well recognized that there are various shades and combinations as regards both anatomical distribution and age of onset. Purely localized disease is rare in patients over the age of 70, and generalized distribution is uncommon in patients who haven't yet reached 60. As regards the choice of therapy, the patient's age is thus a basic consideration second only to the nature of the local disease process and its clinical implications.

TWO THREATS TO LIFE

In general terms, it might be stated that degenerative disease of the vascular tree destroys function or threatens life in one of two ways. The commoner of these is progressive luminal obliteration secondary to atheromatous plaque formation. When this process occurs in the main trunk arteries, it pursues an insidious course characterized by the development of compensatory collateral circulation. A classic example of this is seen in the Leriche syndrome, where despite complete obliteration of the terminal aorta and the iliac dichotomy, the pelvis and lower extremities receive sufficient collateral blood supply to maintain basal viability and function. However, when this same process develops in the end arteries where no potential collaterals exist, function is seriously impaired and gross tissue necrosis often follows.

The second major complication of arteriosclerosis of the aorta and its main trunks is aneurysm formation. The virtual eradication of syphilis during the modern era of antibiotics has markedly decreased the incidence of luetic aneurysm. The recognition of arteriosclerotic aneurysm as having an equally lethal potential is well documented, and deserves special consideration.

Although luetic and arteriosclerotic aneurysms may occur in any portion of the vascular tree, each has certain distinctive features. The luetic aneurysm usually presents in the thoracic aorta and is often saccular, whereas the degenerative aneurysm is most frequent in the abdominal aorta, and is fusiform. Although there are many additional distinguishing features, suffice it to say that both pursue an inexorable course which ultimately terminates in death. In this respect, the arteriosclerotic lesion is faster acting, for it destroys its host by dissection and rupture.

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SURGERY FOR THE ABLATION OF ANEURYSM

The surgical advances in the ablation of aneurysm represent one of the most extraordinary advances of recent years. The direct approach of excision, with graft substitution, has replaced the indirect and ineffectual methods which were seldom curative and entailed a prohibitive mortality. The initial successes have been further implemented by the use of hypothermia and extracorporeal circulation, so that it is now possible to excise aneurysms that formerly were unapproachable because of their proximity to the heart and cerebral vessels. However, since the usual aneurysm is arteriosclerotic and occurs below the renal vessels, excision and grafting can usually be effected without danger to the heart or central nervous system. Although the time limits for aortic occlusion at these lower levels have not been established, periods in excess of one hour are well tolerated. Aneurysms involving the renal, celiac or mesenteric vessels are most formidable, but we can now anticipate managing even these by means of shunts or hypothermia.

Doubtless the immediate future will witness many additional improvements, and a resultant increase in both the safety margins and the overall salvage rate. The introduction of plastic grafts has already proved a boon in this respect, for it has partially obviated homografts and their complex processing equipment.

A summation of the remarkable progress that has taken place in this limited field embodies more than a review of a few heroic surgical adventures. Rather, it presents a compelling argument for the wider acceptance of this curative form of therapy, entailing a mortality of less than 10 per cent in a disease which, if untreated, destroys over half of its victims within a year after its initial recognition.

The diagnosis of aneurysms of the abdominal aorta is simplicity itself. In over 90 per cent of cases, the lesion is readily discernible as a pulsating mass to palpation. Symptoms, if present, may be vague, and they may vary from the excruciating pain of dissection to a minimal back and thigh discomfort. Aortography is not indicated, for it may prove dangerous and misleading. If the general condition permits, the findings from physical examination alone may constitute a sufficient and compelling argument for the immediate surgical extirpation of this deadly lesion.

SURGERY IN OBLITERATIVE ARTERIOSCLEROSIS

The overt and urgent need for surgery in aneurysm lacks a parallel in the companion disease obliterative arteriosclerosis. Here the dramatic is replaced by the subtle, and the obvious becomes obscure. To grasp the principles of therapy here, we must first understand their theoretical bases and limitations. When the insidious occlusion of any major vessel progresses to complete cessation of flow, the dependent tissues survive by virtue of the collaterals which are formed in parallel with the functional need. This cannot occur in blood vessels which are endpoints in vascular transport, so that anoxia and necrosis occur. Although collaterals may be sufficient to sustain basic anabolic needs, they are inadequate during periods of increased work and elevated metabolic requirements. It is this limitation on volume flow which produces the cardinal subjective symptom of intermittent claudication. It follows that when the obliterative process is limited to the terminal aorta or its major branches, where the collateral potential is great, there will be few objective signs of circulatory insufficiency and anoxia, so that atrophy, ulcer and gangrene are rare. When any of these changes are present, it should be assumed that the terminal arterial tree is involved, and the indications for surgical intervention are remote. The similarity between claudication and angina pectoris becomes apparent, since both represent a painful response of dependent tissues to hypoxia, with minimal objective changes. But the parallelism ends there, for the extremity readily lends itself to direct examination.

Palpation of the peripheral pulses may prove the most rewarding single procedure in the assessment of major vascular occlusion. The anatomic distribution of pain in claudication is another valuable index for determining the distribution and extent of the obliterative process. When the terminal aorta and common iliacs are occluded, the presenting symptoms usually consist of bilateral thigh claudication extending into the buttocks, and some difficulty in erection. Palpation of the abdomen will reveal aortic pulsations high, with abrupt cessation low and over the iliacs. The femoral pulses are absent or no more than weakly palpable, whereas the more peripheral popliteal and pedal pulses may approach normal volume. These distal pulses are the result of collateral filling secondary to a short segmental occlusion high. The buttock pain and impotence represent impaired flow through the internal iliacs and present as the initial sign of iliac artery involvement. In the presence of the same symptoms, if the peripheral pulses are all absent, the obliterative process may be assumed to have extended distally through the external iliacs to the superficial femoral, or beyond. The presence of necrotic skin changes further projects the disease into the terminal vascular bed and obviates restorative surgery.

The delineation of the extent of arterial obliteration is of paramount importance in surgical evaluation, for regardless of the nature of the proposed operation, its results will be directly proportional to the patency of the distal vessels. There remains some disagreement about the peripheral limits of operability, but the mid-popliteal seems to be the endpoint beyond which the salvage can be no more than minute. For this reason, lumbar aortography is routinely used to determine both the operability and the proper extent of the surgery. Doubtless

even this examination could be dispensed with in a limited segmental occulsion of the terminal aorta with palpable femoral pulses. By and large, it is an essential part of the diagnostic evaluation, however. The procedure is readily carried out under local anesthesia, with percutaneous puncture of the lumbar aorta just below the twelfth rib from the left side. A predetermined dose of contrast medium is rapidly injected into the arterial stream, and simultaneous x-ray exposures are made to allow for visualization of trunk arteries from the diaphragm to the popliteals. The proximal site of obstruction will thus be sharply delineated, together with the principal collaterals. If the femoral vessels are patent, they will fill belatedly as a result of collateral run-off. The absence of femoral opacification does not necessarily indicate obliteration; rather, it requires that the surgeon demonstrate adequate distal patency by exploring the extremity prior to laparotomy. The simplicity of accurate assessment is apparent, since all of the information that has value in determining therapy can be obtained from a careful history and physical examination, and aortography.

SELECTION OF SURGICAL TECHNIC

If the situation appears favorable and amenable to surgery, the type of operation must next be selected, on an individual basis. Despite disagreements as to technic, there is unanimity of opinion as to the principles which must govern the course of action in every case. If the obliterative process is sharply localized or does not extend below the common femorals, the surgical outlook is excellent. In more general terms, the more limited the distal extension, the better the postoperative prognosis. Involvement of the more peripheral elements of the arterial tree is attended by a proportionate diminution in good results, with the endpoint probably at the popliteal. If the indication for surgery is bilateral claudication, the limiting factor is the side of maximum involvement, since the eradication of symptoms in only one leg is of little value to the functional rehabilitation of the patient. As in all other major operations, other considerations influence the decision for surgery. The presence of cerebral or advanced cardiovascular renal disease may preclude operation, as will extreme obesity or invalidism.

The type of operation to be employed depends on the skill and experience of the surgeon, the extent of the disease and the kind of facilities that are available. If a short segmental obstruction is located in the aorta or in its primary branches, simple endarterectomy will often suffice. In more extensive involvements, there are two additional alternatives. The diseased vessel may be excised and replaced by means of a graft, or a bypass procedure can be performed. The latter now has been shown to have sufficient advantages to warrant its universal application.

The technic of bypass is simple, requiring minimal dissection for the establishment of continuity of flow, without disrupting the preformed collaterals. Take for example the relief of terminal aortic obstruction when the femorals are patent. The initial step entails transection of the aorta just proximal to the site of occlusion. Disease remnants in the superior segment are removed by endarterectomy, and afterwards the anastomosis between the trunk of the bifurcation graft and the aorta is carried out. After closure of the distal end of the transected aorta, the terminal limbs of the graft are anastomosed to the sides of the iliacs or femorals at a site from which good backbleeding indicates distal patency. On completion of the procedure, the obstruction has been relieved, and the aorta and its collaterals are intact. Often it becomes necessary to carry out the distal anastomosis at lower levels down to the popliteal.

In any procedure other than bypass, collaterals will be sacrificed. In the event of thrombosis or graft failure in the immediate or late recovery period, the circulatory deficit to the extremity may be of such magnitude that massive necrosis will later necessitate amputation. By preserving collaterals, the bypass technic provides a critical safety factor that is essential, since the natural course of the untreated disease seldom requires amputation. The collaterals play another role—that of providing a time buffer during aortic occlusion. Because they provide a physiological bypass, there is no dependent tissue anoxia. Thus, meticulous care in the preservation of these channels is mandatory.

The type of graft used in bypassing varies with the size of the vessels involved and the availability of vessel banks. Lyophilized homografts are excellent and have stood the test of time. Plastic grafts are gaining wider acceptance, and they have proved satisfactory except as replacements for the smaller vessels, for which the lyophilized homografts are superior.

In the actual approach to surgery, a number of factors require special consideration. Each case presents its own problems. If aortography has revealed a limited segmental obstruction to the terminal aorta or iliacs, a laparotomy is carried out as the initial step. If the anticipated localized thrombus is found, the vessel is isolated and opened between clamps so as to allow the complete removal of all the intraluminal detritus and the restoration of a smooth vessel wall. Closure is done with 00000 silk, and circulation is restored. During the time of occlusion, heparin may be injected into the distal vessel, but that procedure is not without danger. When longer segments are involved, a bypass is undertaken, with a proximal end-to-end and a distal end-to-side graft. Although proximal endarterectomy may be a valuable adjunct in bypassing, distal endarterectomy is dangerous. Regardless of the care taken in its execution, it may allow for flap formation, with the open mouth facing the flow stream and providing an entrance for dissection or luminal blockade.

When aortography has failed to demonstrate filling of major distal vessels, an exploration of the femorals at the groin or thigh is the first surgical step. If these vessels are not patent, as evidenced by backbleeding, the surgeon may declare the situation unfavorable and terminate the procedure. The alternative is to proceed with more distal exploration until a patent vessel is located. Failing this, one must declare the situation hopeless.

If a distal site for anastomosis is located in the thigh, laparotomy is undertaken and the bypass is carried out as before, except that the distal limbs of the graft must be tunneled through the subcutaneous tissue to the pre-selected site in the thigh. Special care must be taken at this point to avoid trauma to the contiguous veins, for they are especially susceptible to thrombus formation, and thrombi may seriously impede the patient's rehabilitation.

Sympathectomy is not done unless there is an independent reason for it, such as hyperhidrosis. This operation has been shown to have little value in the relief of claudication, and it may actually upset the circulatory balance by effecting a shunt of blood from the muscular collaterals to the skin. Needless to say, it will not enhance the results of a successful bypass or palliate any disaster which may result from graft thrombosis.

The immediate results of circulatory surgery are to a large extent dependent upon the judicious selection of patients and upon the scope of the surgery. In the younger candidates—those between 40 and 65 years of age—the operative mortality is less than 2 per cent. The resultant functional and symptomatic improvement is, or should be, 90 per cent or more if the occlusive process has not extended below the common femorals. The percentage of failures rises in proportion to the willingness of the surgeon to operate upon the more distal and smaller vessels. Here again, the late results parallel the early ones, in that few failures occur in patients who have required short bypasses, and increasing numbers of failures occur in those who have required relatively heroic procedures.

COMPLICATIONS

Complications are few as regards aggravation of the disease. With bypass technics, collaterals are preserved, and the occasional graft thrombosis may result in a return of the original symptoms, but without dependent necrosis. Rarely, a well done procedure provokes disaster if plaques loosen or emboli form and lodge in critical distal vessels such as the popliteal. Then if embolectomy is not done or is incomplete, amputation may become necessary. This type of calamity may be unavoidable, but its incidence will be markedly lessened if distal endarterectomies are avoided.

A GLANCE INTO THE FUTURE

The future course of surgery in this field is difficult to predict. The development of agents that are lytic to clots and detritus may give us an important adjunct for surgery, or may actually obviate it. In the interim, we must continue to use the agents which have proved valuable. For the present, surgery is a relatively safe means of restoring function and ameliorating symptoms in selected patients who would otherwise be doomed to invalidism.

Older People at Work

According to estimates by the Bureau of the Census, in March, 1957, somewhat over half of the male population in the age group 65-69 years was still in the labor force; even at ages 70-74 the proportion was practically two-fifths, but at ages 75 and over it was only one-sixth.

People engaged in agriculture show a considerably greater tendency to work beyond age 65 than do those in non-agricultural industries. As a consequence, men and women gainfully employed on farms constitute an increasingly large segment of the working population at these ages. Thus, men engaged in agriculture comprise nearly one-fourth of all males employed at ages 65-69 and not far from one-third of those employed at ages of 70 and over, compared with only one-tenth of employed males aged 14-64 years.

The majority of employed persons 65 and over worked full time—35 hours or more—during the week that the survey was made. Two thirds of these older men and a little more than half the older women worked full time.

It is more common for married men than for unmarried to continue working at the older ages. In March, 1957, more than half the married men at ages 65-69 living with their wives were in the labor force, compared with less than a third of the single men. At ages 75 and over, the proportions were 20 and 10 per cent, respectively. For women, the situation is the other way round. At ages 65-69, for example, only 8 per cent of the married women living with their husbands were in the labor force, whereas for the single women the proportion was 39 per cent.

—From the STATISTICAL BULLETIN, METROPOLITAN LIFE INSURANCE COMPANY, June, 1958.

Hypertrophic Pyloric Stenosis in the Adult

A Case Report

PAUL J. LAUBE, M.D.

DUBUQUE

A 68-YEAR-OLD WHITE filling station operator was admitted to Finley Hospital, Dubuque, on December 6, 1956, because of massive rectal bleeding and vomiting of blood. He was in mild shock.

Both at the time and in retrospect, he insisted that throughout most of his life he had been in perfectly normal health. There had been no previous black stools, rectal bleeding, nausea, vomiting, gas, belching, indigestion, heartburn, food intolerance, abdominal pain, jaundice, rectal disorder, change in bowel habits or any other complaint referable to the gastrointestinal tract.

The past history was totally negative, and the family history was noncontributory. No one in his family had had any similar complaints.

A general physical examination revealed a stocky white male 68 years of age, with cool, moist extremities and slight pallor. The remainder of the physical examination was completely unremarkable, except for tarry stool on rectal examination.

On admission, the patient's hemoglobin was 14.6 Gm., and his hematocrit was 43.5 volumes per cent. The results of the remaining laboratory work were unremarkable.

Immediate upper-gastrointestinal x-rays revealed no evidence of esophageal varices. A 4 cm. esophageal hiatus hernia was demonstrable in the prone position, but promptly reduced. No ulceration was demonstrable at that point. A persistent, smooth, annular narrowing of the pre-pylorus was noted. This involved a 2½ cm. length of the pre-pyloric area. This segment was not entirely rigid, and the mucosa did not appear to have been destroyed. There was no localized tenderness. The stomach emptied well, the bulb was smooth and the duodenal loop was normal.

The roentgenologist's impression was "persistent deformity of the pre-pyloric portion of the stomach, probably due to a peptic ulcer, although the crater cannot be identified." The roentgenologist went on to say, "Carcinoma as the cause of the deformity of the pre-pyloric area cannot be completely excluded."

CONSERVATIVE MANAGEMENT

The patient was placed on two-hourly feedings,

Dr. Laube read this paper at the Waterloo meeting of the Iowa Academy of Surgery, on October 12, 1957.



Figure 1



Figure 2

in alternation with two-hourly aluminum hydroxide gel; Pro-Banthine 15 mg., with phenobarbital 15 mg., t.i.d., and 30 mg. each at h.s.; bed rest; and close observation.

For 12 hours this conservative management seemed adequate, but bleeding recurred thereafter. Surgery was contemplated, but a transfusion reaction occurred, and shortly afterward bilateral parotitis, presumably precipitated by the Pro-Banthine.

Accordingly, conservative treatment was continued, and it ultimately proved successful. The patient ceased bleeding and made a complete recovery.

The patient was sent home on an ulcer program, but Pro-Banthine was omitted from his regimen.

Two months later, he was readmitted. He was feeling fine at that time, and had had no further episodes. Gastrointestinal x-rays were then repeated, and the findings were essentially the same. No demonstrable change had occurred. Yet, in view of our inability to exclude carcinoma of the stomach, we decided upon surgery.

ELECTIVE SURGERY

When the peritoneal cavity had been opened, the distal stomach presented a firm, fleshy mass that was not invading the serosa. It was the size of a large walnut, and it seemed to occupy the stomach area immediately proximal to the pylorus. It suggested the type of tumor that is found in infants having congenital hypertrophic pyloric stenosis, but it was considerably larger. No regional lymph nodes were involved, and there was no inflammatory reaction. The liver was normal.

The remainder of the exploration of the abdomen was negative, except for the hiatus hernia, and it was not tight.

A distal 60 per cent gastrectomy was done, with a retrocolic termino-lateral gastrojejunostomy. An effort was made to stay wide of the tumor throughout.

The pathologists' report stated: "The specimen consists of a subtotal stomach measuring 11 cm. along the lesser curvature and 18 cm. along the greater curvature. . . . In the pyloric area, there is a firm mass of tissue which encircles the lumen and measures 3.4 cm. in diameter. Microscopically, the wall of the stomach at the pylorus is increased in thickness. The smooth muscle cells are compact and arranged in intervals and bundles. Ganglion cells are present in the stroma adjacent to the serosa. Mucosa of the stomach and duodenum is intact. Pathology Diagnosis: Hypertrophic pyloric stenosis in the adult."

The patient has been checked several times postoperatively. X-rays show excellent functioning of the anastomosis, and the patient's clinical condition was excellent as of December, 1957.

PREVIOUS REPORTS OF THIS CONDITION

The preceding case report illustrates an interesting surgical problem—one which perhaps is not quite so rare as many physicians may think. According to a number of authors, well over 100 such cases have been reported in the literature.[1] The first adult case, actually, was reported as long ago as 1835 by Jean Cruveilhier.[20]

In this connection, I might mention a very interesting historical note on the related condition of congenital hypertrophic pyloric stenosis in the infant. In 1788, Dr. Hezekiah Beardsley, of Southington, Connecticut, published the first description of congenital hypertrophic pyloric stenosis in an infant.[20] His article appeared in one of the earliest volumes of medical transactions to be issued in this country, entitled CASES AND OBSERVATIONS BY THE MEDICAL SOCIETY OF NEW HAVEN COUNTY AND THE STATE OF CONNECTICUT. Dr. Beardsley entitled his report "Schirrosity of the Pylorus," and Osler, 125



Figure 3



Figure 4

years later, thought so much of it that he had it reprinted in ARCHIVES OF PEDIATRICS (20:355-357, 1903). Through 100 of those 125 years, Beardsley's article had lain neglected, until in 1888 Hirschsprung reviewed it and revived the subject. Of further historical interest is the fact that Dr. J. L. Kestel,[7] of Waterloo, Iowa, reported three adult cases in April, 1938, in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY.

ETIOLOGY

The etiology of this interesting condition is unknown, but there are numerous theories.[15, 17] Two main schools of thought exist. The first of them is represented by those who hold that the condition is merely a prolongation of the infant type into adulthood. They reason that 80 per cent of these patients are males; many patients give a history of gastric complaints dating from childhood; the pathologic changes in the circular muscle of the pylorus are similar to those in the infant; the Ramstedt operation is almost certainly not done in every case of the congenital pyloric type; and it must therefore follow that in cases in which, for one reason or another, surgery is not performed in childhood, the anomaly persists into adult life.[10, 11]

Members of the opposing school of thought contend primarily that the vast majority of patients—probably 75 per cent—have never exhibited symptoms previously.[14] Therefore, there can hardly be any relationship between congenital hypertrophic pyloric stenosis and hypertrophic pyloric stenosis in the adult.

Next, we come to a consideration of the possibility that there may be two types of this condition in the adult. One may have a long history, dating from the patient's infancy. In such a case, the history is one of digestive complaints since childhood, including nausea and vomiting, and allied symptoms. The second group of patients—of which group the patient whose case I have reviewed would be typical—remain symptom-free until middle age or later, at which time there is a sudden onset of symptoms.

The symptomatology is not specific. Nausea, vomiting, abdominal pain, hemorrhage, and typical ulcer symptoms or obstruction may all be found.

In this discussion of etiology, I should cite one more point: a distinct familial tendency.[2, 5] There are probably three families on record in each of which four members are known to have suffered from this condition in adult life. In another family, two members were found to have pyloric stenosis in adulthood.

DIAGNOSIS

The condition is usually confused with prepyloric ulcer with spasm, or with simple antral spasm, early scirrhous carcinoma, leiomyoma or gastric syphilis. Kirklin,[9] in reporting 81 cases

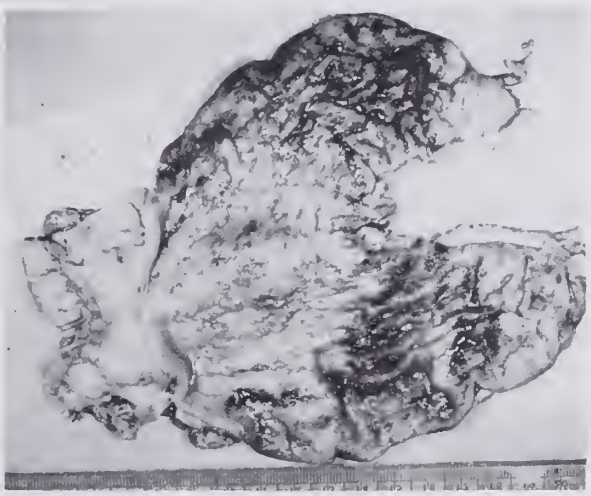


Figure 5

from the Mayo Clinic, has implied that the preoperative x-ray plates should establish the diagnosis quite easily. However, in only one of the 81 cases he reviewed was the correct diagnosis made preoperatively. As happens frequently to most of us who are engaged in medical practice, Kirklin probably found the diagnosis much easier when Rigler's "retrospectoscope" was available to him.

TREATMENT

Treatment has ranged from the Ramstedt operation to gastrectomy. On occasion, when the diagnosis has been definite, the Ramstedt procedure has been successful. In other cases, it has been subsequently necessary to resort to gastrectomy. In the patient whom I have described, it is admitted that no ulcer or bleeding point was found at the pylorus. The patient's bleeding could have come from the hiatus hernia. Yet, a pyloric erosion might have healed during the two months' interval between hemorrhage and surgery.

SUMMARY

An interesting case of hypertrophic pyloric stenosis in an adult has been reported, and the problem has been briefly reviewed.

REFERENCES

1. Berk, J. E., and Dunlap, H. J.: Hypertrophic pyloric stenosis in adults; report of two cases. Ann. Surg., **119**:124-133, (Jan.) 1944.
2. Cameron, A. L.: Familial occurrence of congenital hypertrophic pyloric stenosis. Western Surgical Association Transactions, **62**:273-290, 1954.
3. Connolly, J. E.: Hypertrophic pyloric stenosis in adult. Am. J. Surg., **89**:1123-1127, (June) 1955.
4. Elmer, R. F.: Hypertrophic pyloric stenosis in adult. Am. J. Surg., **25**:499-503, (Sept.) 1934.
5. Fenwick, T.: Familial hypertrophic pyloric stenosis. Brit. M. J., **2**:12-14, (July 4) 1953.
6. Geist, D. C.: Hypertrophic pyloric stenosis in adult. Am. J. Surg., **91**:845-848, (May) 1956.
7. Kestel, J. L.: Hypertrophic pyloric stenosis in adults. J. Iowa M. Soc., **28**:147-148, (Apr.) 1938.
8. Kibler, F. E.: Idiopathic benign hypertrophic pyloric stenosis in adult. Minnesota Med., **22**:373-381, (June) 1939.
9. Kirklin, B. R., and Harris, M. T.: Hypertrophy of

pyloric muscle of adults: distinctive roentgenologic sign. Am. J. Roentgenol., **29**:437-442, (Apr.) 1933.
10. Kleitsch, W. P.: Diagnosis and treatment of pyloric hypertrophy in adult. AMA Arch. Surg., **65**:655-664, (Nov.) 1952.
11. Kleitsch, W. P.: Pyloric hypertrophy in adult. Nebraska M. J., **38**:87-89, (Mar.) 1953.
12. Krieg, E. G.: Hypertrophic stenosis of pylorus in adult. J. Michigan M. Soc., **35**:178-179, (Mar.) 1936.
13. McCann, J. C., and Dean, M. A.: Hypertrophy of pyloric muscle in adult; experiences with conservative and radical surgical treatment. Surg. Gynec. & Obst., **90**:535-542, (May) 1950.
14. North, J. P., and Johnson, J. H., Jr.: Pyloric hypertrophy in adult. Ann. Surg., **131**:316-329, (Mar.) 1950.
15. Pendergrass, R. C.: Hypertrophic pyloric stenosis in adult, with report of case. Radiology, **20**:221-225, (Mar.) 1933.
16. Pollard, H. M., and Cooper, R. R.: Hypertrophic gastritis simulating gastric carcinoma. Gastroenterology, **4**:453-465, (June) 1945.
17. Raia, A., De Almeida, A. Cardoso, and Fry, W.: Pathogenesis of hypertrophic stenosis of pylorus in newborn and adult. Surg. Gynec. & Obst., **102**:705-712, (June) 1956.
18. Runyeon, W. K., Hoerr, S. O., and Hazard, J. B.: Hypertrophic pyloric stenosis in adult; discussion of etiology and report of case. Cleveland Clin. Quart., **22**:76-82, (Apr.) 1955.
19. Vorhaus, M. G.: Hypertrophic pyloric stenosis in adult. Gastroenterology, **7**:464-468, (Oct.) 1946.
20. Wakefield, H.: Hypertrophic pyloric stenosis in adults. Gastroenterology, **2**:250-257, (Apr.) 1944.

Some Observations on

The Fall Pollen Hay Fever Problem

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FOR YEARS, IT HAS BEEN the impression of the staff at the Allergy-Arthritis Division of the University of Virginia Medical School that simple, uncomplicated fall pollen hay fever is relatively uncommon. As a test of the validity of that impression, 100 consecutive records of patients whose chief complaint was fall hay fever and who had been under observation for five years or more were reviewed. Most of these cases had been tested with extracts of more than 100 foods and inhalants, in addition to ragweed, cocklebur, goldenrod and corn. A questionnaire was sent to each patient, and 54 of the replies were sufficiently detailed to permit evaluation. Pertinent results of that study will be summarized in the three tables in this report, and a case will be outlined to illustrate some common problems in patients whose chief complaint is fall hay fever.

CASE REPORT

The case of a 32-year-old white married woman illustrates some of the common problems in patients whose chief complaint is seasonal hay fever.

She was seen in early September, 1938, at which time her chief complaint was hay fever in late August and September, a difficulty from which she had suffered since 1936. During those two months each year, but not at other seasons, dusts, tobacco smoke, insecticides and several cosmetics caused stuffiness of the nose. She exhibited positive reactions to skin tests of ragweed, goldenrod, cocklebur, grasses, plantain, house dust, six other inhalants and nine foods. Marked relief followed five co-seasonal series of injections, in which increasing concentrations of ragweed extracts were administered twice daily for a week.

Perennial treatment with ragweed extract was continued, and the patient had no symptoms in 1939. Hay fever recurred in early September, 1940. Striking relief followed a few days of supplementary co-seasonal treatment with cocklebur and goldenrod. She had a poor fall pollen season in 1941, in spite of continued perennial injections. She had negligible hay fever in the fall of 1942. She decided to stop the injections in July, 1943.

Hay fever returned to the patient in May, 1944. Injections were resumed, with a mixture of fall pollen, grass and plantain extracts. Nevertheless, she had troublesome hay fever from August to October, 1944, when house-dust extract was added to her injection formula. She continued this perennial schedule the following 12 years, with about 90 per cent relief of her hay fever.

This case illustrates the following points:

(1) The beneficial effects of co-seasonal and perennial treatment, first with ragweed and later with cocklebur and goldenrod, grass and plantain, and dust extracts

(2) The development of a second (late spring) pollen hay fever season

(3) A progressively increasing need for a broader spectrum of antigens

(4) Sustained good results, finally, when an adequate spectrum of antigens was used

(5) The necessity for prolonged treatment in some cases.

DISCUSSION

Waldbott[2] mentions four causes of failure in attempts to treat pollen hay fever: (1) excessive treatment, (2) insufficient treatment, (3) incorrect choice of extracts, and (4) inadequate con-

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trol of factors other than pollen. He emphasizes that, in the individual case, it may be necessary to treat with fungus extracts, eliminate certain foods and control infection during the hay fever season.

Eyermann[1] reported a group of cases in which avoidance of certain foods and inhalants other than pollen provided satisfactory relief of seasonal hay fever, without injections of pollen extracts.

Food avoidance alone was not a decisive factor in the treatment of any of our cases, but it has contributed to a successful treatment in several patients (see the footnote to Table 3).

It is interesting that about two-thirds of the 100 patients attributed seasonal symptoms to exposure to dust and non-specific irritants, whereas more than one-third had perennial symptoms from dust.

Considerations other than fall pollen injections (based on the history, skin tests and poor results from pollen therapy) influenced the therapy in

TABLE 1

SYMPTOMS OF FALL HAY FEVER PATIENTS

Symptom	*Incidence based upon 100 Records*	*54 Questionnaires*
Asthma	53	27
Nasal polyps	12	6
Perennial hay fever	51	27
Other allergic disorders (urticaria, angioedema, atopic dermatitis, but not including food allergy and venenata)	58	32
Chronic nervous tension	49	29
Family history of allergic disorders (including grandparents)	81	40
INHALANT HISTORY		
Fall pollen	100	54
Grasses and plantain	8	2
Trees	2	1
Dusts	62	36*
Non-specific irritants (fumes, smokes, perfumes, insecticides, fresh paint, soap powders, etc.)	57	34*
Physical factors (sudden temperature and weather changes, dampness, humidity, drafts, wet feet, over-exertion, fatigue, etc.)	63	34

* Perennial hay fever attributed to dust in 21, and to non-specific irritants in 13.

82 out of the 100 patients—i.e., food avoidance in 7; inhalant avoidance in 59; and dust injections in 73 patients. Similar considerations affected results of therapy in 50 of 54 patients (see Table 3)—i.e., food avoidance in 3; inhalant avoidance in 29; and dust injections in 46 patients.

Of the 27 seasonal asthmatics, 15 reported significant improvement.

Associated tension was shown to be important in only one case, in spite of its prominence in nearly half of the histories.

These data show a high incidence of important considerations other than fall pollen in the management of 100 patients whose chief complaint

TABLE 2

POSITIVE REACTIONS IN 100 PATIENTS GIVEN SKIN TESTS

Fall pollen	90
Foods	100
Inhalants other than fall pollen	10
(Skin tests negative, but conjunctival tests positive with fall pollen)	10

TABLE 3

RESULTS OF TREATMENT

(Patients' estimates contained in 54 questionnaires) *Number of Patients*	*Per cent of improvement*	*Duration of injections*
6	100	1-3 years
19	90 or more	4-5 years
13	75	3 years
13	50	3-4 years
3*	0	1-2 years
(PATIENTS' IDEAS ON WHAT PRODUCED RELIEF)		
36**	Allergy injections	
4	Antihistaminics	
13	Combined therapy (injections, antihistaminics, and inhalant and food avoidance)	
1	Psychotherapy alone	

* In one patient, asthma disappeared in two years, but hay fever persisted.

** Only four received fall pollen injections alone.

was fall hay fever. The majority of patients needed from three to four years of hyposensitization to obtain the maximum relief.

SUMMARY AND CONCLUSIONS

Fall pollen hay fever is frequently complicated by other clinical problems, especially perennial hay fever and asthma due to other causes.

A case report has illustrated some of these common problems.

REFERENCES

1. Eyermann, C. H.: Considerations in evaluating therapy of hay fever. South. M. J., 33:190-194. (Feb.) 1940.

2. Waldbott, G. L.: Present status of pollen injections. Internat. Arch. Allergy, Basel, 2:278-289, 1951.

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 14-YEAR-OLD BOY was admitted to the Department of Pediatrics during October, 1955, with the complaint of periodic bouts of stomach discomfort, terminating in vomiting.

The patient had had the onset of his attacks five years prior to his hospital admission. Thereafter, they occurred approximately once a month. His father described the attacks as follows: The boy would become quiet and would complain of feeling tired and of having abdominal distress. Then, after about one hour and after several episodes of retching, he would vomit. Thereafter, he would say he was comfortable and would appear "normal" to his family. Approximately two years prior to admission, the abdominal distress increased in severity, and the attacks began to occur as frequently as twice a week. Vomiting large quantities of bile-stained fluid relieved his abdominal distress.

The father and the boy agreed that the attacks seemed to be precipitated by excitement and worry. The patient had been admitted to the local hospital on two occasions for exacerbations of his symptoms. One of these had coincided with his mother's death, from cancer, and the other had followed the destruction of the family's home by fire. The father described the boy as "happy and normal" between attacks.

The initial physical examination revealed that the boy was lethargic in his general demeanor. His height and weight were one standard deviation above normal. There were no physical findings suggestive of disease. The hemoglobin was 13 Gm./100 cc. The 9,850 white blood cells showed 58 per cent segmented polymorphonuclear leukocytes, 7 per cent eosinophils, 2 per cent basophils, 27 per cent lymphocytes, and 6 per cent monocytes. On examination, the urine appeared to be within normal limits. A roentgenogram of the chest showed no pulmonary of cardiac disease.

During the first 14 days of the patient's hospital stay, he was symptom-free, and he was described as being "happy and sociable." The ward clerk assigned to the case spent considerable time interviewing him, and by that means learned of many difficulties in the boy's home. The youngster did not like his father, and was hostile toward his siblings. He expressed a wish that arrangements could be made so that he would not be required to return home.

After having been free of symptoms for two weeks, the patient had an episode of abdominal pain and vomiting. The ward clerk observed the attack and described it in the record. The patient said he felt nauseated and complained of abdominal pain, but the pain was not severe enough to cause apparent abdominal distress. It was the impression of the ward clerk that "there was a mass the size of a person's fist in the right upper quadrant." The abdomen was not distended; the bowel sounds were described as "minimally present." The patient vomited a large quantity of bile-containing fluid, and he was then relieved of his nausea and discomfort. During the following four or five days, he had numerous similar attacks.

A roentgenographic examination of his gastrointestinal tract was then done, and the report was as follows: "Films of the abdomen confirm the fluoroscopic findings, and show a normal-sized stomach with smooth outlines and rugal folds. The duodenal bulb is well visualized and shows no evidence of ulcer niche or deformity. At the end of five hours, the stomach and duodenum are empty, the head of the barium column being near the ileocecal junction."

After being free of his complaints for several days, the patient was dismissed on the twenty-third hospital day with the diagnosis "Deferred." During his hospitalization, the patient had been seen by a staff member of the Child Psychiatric Unit, and at the time of dismissal, the father and the local welfare agency were informed of the importance of improving the home situation.

Later, the boy was hospitalized at the Psychiatric Hospital for five months. He had no attacks of pains during that period, and he was discharged in October, 1956, with a diagnosis of "adjustment reaction of adolescence."

Little is known of the patient's course during the following year. The family doctor stated that the father-son problems continued.

On October 15, 1957, the boy was readmitted to the local hospital complaining of abdominal pain. He was afebrile, his stools were normal and no vomiting occurred. Suddenly, two days later, he "passed some blood from the bowel and vomited a small amount of dark-colored fluid." His blood pressure was too low to record. His temperature was 101° F. He did not respond to supportive care, and expired a short time thereafter. At the request of the family physician, the body was brought to this hospital for postmortem examination.

CLINICAL DISCUSSION

Dr. J. C. MacQueen, Pediatrics: It was the decision of your CPC Committee that the discussant of

this case should abstract the protocol from the hospital record, since rather than emphasize the differential diagnosis, the presentation should recapture the situation under which the child was admitted to the hospital and should record, in chronological order, the personalities involved, the diagnoses considered and the therapy recommended.

Recurrent, ill-defined abdominal distress is a relatively common symptom among 14-year-old children, and the cause often evades our best diagnostic efforts. But the combination of recurrent abdominal distress and vomiting in a 14-year-old child is very ominous and unusual. The boy and his father could not remember any illness, trauma or other precipitating factor that might have explained the vomiting, nor were they aware of any situation that might have accounted for the increased frequency that had its inception approximately two years prior to admission.

For emphasis, a description of the boy's symptoms is given in the second paragraph of the protocol. The father is quoted as saying that at the onset of an episode the boy complained of a generalized sensation of illness, of feeling tired and of having abdominal distress. The abdominal pain was not described as excruciating. The patient could be diverted during a period of pain, yet it was severe enough so that he wanted to be alone. His discomfort might last no more than a few minutes, or it might continue for the greater part of a day. Almost without fail, such an illness would terminate in vomiting. This is the problem that we are discussing.

The physical examination and the laboratory tests that were done at the boy's admission to the hospital did not suggest disease.

The history recorded by the ward clerk was unusually complete and helpful. He did an excellent job of interviewing the boy, and the reports of those interviews were of great help to us in understanding the case. Although the father stated that he considered his boy happy and normal, it seemed unwise for us to credit his testimony. The historian came to doubt his reliability as an informant.

I shall enlarge briefly upon the protocol's summary of the interview material, for it was important. The father had a fondness for liquor and spent a large part of his time convalescing from his sprees. During those times, his children did the work around the home, and he commonly required them to stay out of school for that purpose. The boy had few contacts outside the home. Whenever he was free, he preferred to spend his time in the homes of his neighbors. This type of father-son relationship makes it understandable that the boy should wish for arrangements under which it would not be necessary for him to return home after leaving the hospital.

Toward the end of his first 14 days in the hospital here, things seemed to be going well. The patient had adjusted to the ward, and he had had no bouts of abdominal distress. But then a necessary change was made in the ward-clerk assignment, and the patient did not relate well to the second ward clerk. Futhermore, it was found that the patient was somewhat upset because of talk concerning his dismissal from the hospital.

At that time, those involved in the case were perplexed. They were aware that a patient with a recurrent disease might be free of that disease for a considerable period following his admission to a hospital. This explanation seemed especially likely, for it had become apparent that the boy had been living in a situation of major psychic trauma. It was thought that the episodes of abdominal distress might have been related to the periods of father-son conflict, and the history of vomiting then seemed less impressive. It became apparent that the original history was undependable.

The boy complained of being nauseated throughout his fifteenth hospital day. He had no bowel movements, and his intake of fluid was unusually large. Late that evening, he complained of severe nausea and abdominal distress. He was examined at that time, and a lump the size of a person's fist was described in the right upper quadrant. The examiner did not feel that the pain was very severe, however, for the boy talked during the pain. The abdomen was flat by percussion, and the epigastrium was hyper-resonant by auscultation. Bowel sounds were minimally present.

For three days, the boy continued to have intermittent episodes of nausea and vomiting. The previous working diagnosis of abdominal distress, psychosomatic in origin, no longer seemed tenable. This history of abdominal pain followed by vomiting made necessary the working diagnosis of small-bowel obstruction.

The results of a roentgenographic examination of the intestinal tract are recorded in the protocol. The examiner reached an impasse, for the results of the radiographic examination did not support the impression of abdominal obstruction.

After the patient's three-day period of illness, he improved and was free of any signs of disease. Following this clearance of symptoms, serious consideration was given to the possibility that psychogenic causes were actually the precipitating factor. During this time, the patient was seen by a staff member of the Child Psychiatric Unit. Also, the father was interviewed, and at the time of dismissal, arrangements were made for improvement of the home situation. The patient was dismissed with the diagnosis of "deferred."

This child was a patient in the Psychopathic Hospital for a considerable period, beginning a short time after his dismissal from the Pediatric Ward.

Dr. Norris will tell us about the conclusions of the Psychiatric Department.

Dr. A. Norris, Psychiatry: Apparently, when the ward clerk was replaced, the patient withdrew and became rather suspicious, and some of the ideas he expressed about his father sounded rather bizarre. As a result, the boy was initially referred because his behavior on the Pediatric Ward was suspected of being psychotic. As it turned out, what he said of his father was essentially correct.

The patient was first seen on December 30, while he was still a patient here. At that time it was felt that he had an adjustment reaction connected with his situation at home, and that he might be experiencing a more serious mental disease along with it. Consequently, arrangements were made for him to come to the Psychopathic Hospital, and he entered there in April.

You have the history of his episodes during the six months he spent in the hospital. Both occurred during the initial part of his hospitalization, and they were very clearly tied up with incidents on the wards. In addition to his GI symptoms, he showed a profound personality disorder. Psychotherapy was attempted. We did not feel that we got through to the youngster, but he did not have any more GI symptoms after his initial period in the hospital. He was discharged with the diagnosis of adjustment reaction to adolescence and a severe personality disorder in connection with it. In consequence, since we definitely felt that his GI symptoms were related to his situation at home, arrangements were made for him to go to a Quaker home for boys, where he would reside until he grew older.

Dr. MacQueen: How long was he a patient at the Psychopathic Hospital?

Dr. Norris: Six months, from April to October, 1956.

Dr. MacQueen: The patient was at home for a year. From a communication we recieved from the local physican, we know that things did not go well there. To say that the father-son problems continued would be an understatement. Following the child's death, his body was sent to this hospital for postmortem, for it was suspected that foul play might have precipitated the illness that required his final hospitalization. The protocol says that he had the onset of acute pain on the last full day of that hospitalization—which is not impressive. On the following day, the pain became even more severe, and the patient collapsed and died shortly thereafter.

Dr. Robert Wilcox, Student Health: I might say that I examined this patient at the Psychiatric Hospital and found no evidence of mass in his belly at the time that he was vomiting.

Dr. MacQueen: While the patient was on the Pediatric Ward, a mass was identified and described on two occasions. There were other occasions when the description of the mass was poorly documented.

Dr. Emory D. Warner, Pathology: The essential anatomic findings were in the abdomen. There were incomplete rotation and fixation of the bowel. The stomach and doudenum were fixed in their normal locations. The descending colon, sigmoid and rectum were in their normal positions, and were normally attached to the body wall. But the entire bowel from the ligament of Treitz to the splenic flexure of the colon was suspended by a single mesentery which had a very narrow base attached to the posterior parietes just below the ligament of Treitz. The superior mesenteric vessels were included in the base of that attachment. The bowel was twisted two and one-half times counterclockwise on this mesenteric attachment, and there was massive infarction of the entire bowel from the ligament of Treitz to the splenic flexure of the colon. There was a generalized acute peritonitis associated with the intestinal infarction. About 12 inches of proximal jejunum was tightly kinked into a knotted mass bound by old and very dense fibrous adhesions. This portion of the jejunum was approximately 12 inches distal to the ligament of Treitz.

The tight kinking of the jejunum in this mass of fibrous adhesions had resulted in a partial obstruction of the small bowel. The obstruction, however, was incomplete, and the jejunum proximal to the obstruction was not conspicuously hypertrophied. This knot of tightly-kinked bowel produced a tumor which could have been located, from time to time, almost anywhere in the abdomen as a result of the rotation of the intestinal mass upon the pedicle-like mesentery. Rotation of the bowel 180° counterclockwise from a normal position would have caused the knotted mass to appear as a tumor in the upper abdomen. The adhesions were extremely old and dense, indicating that the mass had existed for many months, if not for years. It is entirely possible that this was the mass which was palpated on occasion in the upper abdomen.

The body had been embalmed, and the peritoneal cavity had been packed with hardening compound. As a result, the normal colors had been destroyed. Consequently, the gross photographs were taken in black and white. In one of them, the kinked mass of upper jejunum was shown lying at the brim of the pelvis. A low-power photomicrograph of infarcted bowel showed retention of the general topography of the bowel wall and extensive necrosis and hemorrhage throughout the entire thickness of the bowel wall. A higher-power photomicrograph showed extensive hemorrhage and an acute inflammatory reaction, with exudate on the peritoneal surface. A photomicrograph of mesentery showed massive hemorrhage into one of the mesenteric lymph nodes.

In summary, we found a congenital deficiency of rotation and fixation of the bowel with volvulus,

massive intestinal infarction and generalized peritonitis.

Dr. Carl L. Gillies, Radiology: In retrospect, I have come to regard the x-ray report in the protocol as erroneous. In the six-hour film, the stomach and duodenal bulb appeared to be entirely normal, but the bowel outlined in the midline over the sacrum, I have come to believe, was cecum. The colon was outlined as far as the mid-descending section by a small amount of barium, and from there down by fecal material.

If we had read the film in this fashion at the time of the examination, I believe we would have insisted upon a barium-enema study. It, I think, would at least have led us to the diagnosis of unrotated bowel.

Also, I think it would have been highly advisable for us to do an examination during one of the patient's attacks. Even a flat film at such a time might have shown us evidence of obstruction and trapped gas in the small bowel.

Dr. MacQueen: Dr. Hickey, will you discuss this subject from the surgeon's point of view? In our own hospital records, there are only two children between the ages of one and 16 years who have had this diagnosis, and I think it is fair for us to conclude that it certainly is not a common diagnosis.

Dr. R. C. Hickey, Surgery: One certainly is impressed by the fact that this lad had a very unhappy life throughout his 14 years. As it has been presented, the problem appears to have been twofold. It seems certain that he had an emotional problem to deal with, and he also had an intestinal obstruction, though it appears to have been less well documented clinically.

How one might weave one into the other is difficult for me to conceive. These were probably two separate entities, but there is a possible relationship between them—some type of stimulation, perhaps an emotionally based ileus and then a volvulus of a minor degree. The record seems to show that the youngster's weight-gain was relatively steady, and he grew well. Thus, his type of obstruction seems not to have been nutritionally significant.

As regards the cause of an intestinal obstruction in a lad of his age, one would consider first whether he had had an operation of any sort. One would also consider the possibility of a neoplasm. He was arriving at the age when occasional small-bowel neoplasm or hemangioma might appear. Old infections, bands, congenital anomalies such as rotation—these also are to be considered. And then, too, there is the possibility of obstruction due to intussusception. An intussusception is a common cause of intestinal obstruction in childhood, but only in about five or six per cent of cases are we able to discover the etiologic agent. It might be a Meckel's diverticulum or a "leading" tumor, but such an intussusception is extremely rare in a child of this age. Most likely, it would appear after an acute enteritis. Usually, a transient colicky pain appears. This, along with the rotation abnormality, is more frequent in the male. Bloody stools and a sausage-like mass would be suggestive, and the x-ray would be exceedingly helpful in diagnosis. It is likely, of course, that the therapy would be surgical.

In summary, it would appear that this lad had a failure of rotation, he had frequent bouts of obstruction, and probably at some time he had a borderline infarction. As a consequence of the latter, he had an inflammatory mass in the bowel and adhesions such as Dr Warner has described. It seems that the mass was suspected of being a phantom, since it appeared first in one portion of the abdomen and then in another. Finally, he developed a situation of complete twisting infarction and died from the consequences of infarction plus peritonitis.

Dr. J. M. Layton, Pathology: I don't understand why you have called the mass "a phantom." Someone saw it and someone felt it.

Dr. Warner: It *wasn't* a phantom, but it *seemed* to be one.

Dr. MacQueen: In brief review, we have a boy whose presenting symptoms were unusual. A recurrent, ill-defined abdominal distress is relatively common among 14-year-old children, and it frequently evades our best diagnostic measures. But the history of recurrent abdominal distress terminating in vomiting is quite a different history. This is unusual and ominous. This is a history of small-bowel obstruction until it has been proved otherwise.

The reasons why this diagnosis was doubted have been discussed. We must now say that this boy should have had repeated radiographic examinations during the times that he was having abdominal distress. It is fairly common for radiographic examinations of such a patient to be negative, or at least not diagnostic, unless the films are taken during an acute episode. If repeated radiographic examinations had failed to reveal the cause of the difficulty, the boy probably should have had an exploratory laparotomy.

There is no doubt that this boy had a major psychiatric problem. I think the key to the situation was suggested by Dr. Hickey. He had organic problems related to his bowel, and he had psychiatric disease. The latter, no doubt, influenced or precipitated the acute episodes of bowel obstruction, and the two pathologies were so intermixed in the history that evaluation was difficult. We are reluctant in most cases to make two diagnoses, but in this case we should have done so.

Many questions concerning this boy have been left unanswered. Why did he live for nine years free of his complaints, and why did he have one complaint-free year following therapy? Furthermore, it is difficult to understand why his final

episode of obstruction occurred—the one which resulted in his death.

Dr. J. A. Gius, Surgery: Dr. Hickey's diagnosis was malfixation of the small bowel. How can that be corrected?

Dr. Hickey: I'm not quite sure I understand the question. I presume that one would find a band extending from the right lateral abdominal wall, crossing the duodenum to the cecal or the ascending colon. It might be producing an obstruction of the duodenum. Also, I should presume the presence of a volvulus; indeed that is what would have prompted the surgery. If a derotation were unnecessary, I should incise the band and let the duodenum drop straight down on the right side, and let the cecum drop to the left, and I should make no attempt to fix these structures in their normal position. Is that answer satisfactory?

Dr. Gius: Yes, but isn't there a possibility that rotation would take place after such a resection?

Dr. Hickey: I think that the free gut probably would not rotate. At least that is what Dr. Ladd seems to feel. I believe another rotation with a narrow footpiece is always possible.

The jejunum probably had become infarcted terminally, as a consequence of a major tight rotation. There was a mass of adhesions secondary to a minor infarction, but it did not produce gangrene.

Dr. Warner: I think that the knot of adhesions produced the obstructions above it.

Dr. Hickey: Yes, a band across the duodenum may not have produced the obstruction. Yet, that is one of the things one must look for, and it is responsible for failure in some operations.

Dr. Warner: There was no conspicuous band across the duodenum, tying the bowel to the right side of the abdominal cavity, in this patient. The sharply kinked mass of proximal jejunum could well have produced varying degrees of partial obstruction as the bowel moved. The fact that this mass apparently was noted in the upper abdomen during some of the patient's attacks suggests that some degree of twisting of the bowel on its mesenteric attachment may well have precipitated the periodic episodes of pain and vomiting.

Dr. Henry Hamilton, Internal Medicine: I should like to ask the psychiatrists whether they are willing to accept the supposition made by Dr. MacQueen that stressful situations may have helped this infarction along.

Dr. Norris: There is x-ray and radiologic evidence that peristalsis of the bowel is either increased or decreased during stressful situations, and certainly if stress did produce an increase in peristalsis, I assume that it could aggravate an already-present condition.

SUMMARY OF NECROPSY FINDINGS

There was congenital deficiency of rotation and fixation of the bowel, with the small bowel and the major portion of the large bowel being attached to the posterior body wall by a single long mesentery. Only the descending colon and the duodenum were normally fixed to the posterior body wall.

The bowel was found to be rotated two and one-half turns counter-clockwise on the mesenteric attachment. In consequence, there was an infarction of the jejunum, ileum and proximal two-thirds of the colon.

A mass 10 cm. in diameter bound by dense fibrous adhesions into the mesentery of the transverse colon consisted of a sharply-kinked loop of jejunum. The mid-portion of the transverse colon was also densely bound to this mass, but its lumen did not appear to have been compromised. Rotation of the bowel through 180 degrees counter-clockwise would have caused this mass to present anteriorly in the left upper quadrant of the abdomen.

The other findings were incidental to the volvulus and intestinal infarction. The infarcted bowel was greatly dilated and hemorrhagic. There was no gross perforation, but cellulitis of the bowel wall had spread so as to produce a generalized peritonitis.

ANATOMICAL DIAGNOSES

1. Congenital deficiency of rotation and fixation of bowel
2. Volvulus of bowel, with obstruction of superior mesenteric vessels and massive intestinal infarction
3. Acute generalized peritonitis
4. Old intraperitoneal adhesions, with kinking, of the small bowel.

Iowa Included in AMA Hill-Burton Survey

Iowa utilization of federal money for hospital construction is covered in an AMA report which is being issued on August 1. Copies of the pamphlet can be secured from the Committee on Medical and Related Facilities, a division of the AMA Council on Medical Services.

In addition to reviewing the legislative background of the Hill-Burton Act and a voluminous amount of other data, the report summarizes field surveys which have been made in the following states: Arkansas, California, Connecticut, Georgia, Illinois, Iowa, Kentucky, Maryland, Michigan, Mississippi, Montana, New Jersey, Oregon and Washington.



DO NO HARM!

In our hospital practice, we now must take pains as never before to see that we and the paramedical personnel who work with us observe the first rule of medicine: "Do no harm!"

Principally because antibiotics have performed superbly throughout the past 10 years, we have administered them routinely, and the effect has been that bacilli resistant to antibiotics have been selected or have evolved. Those resistant variants are now infesting the noses of half the doctors, nurses, aides and other people who come into constant contact with hospitalized patients.

Dr. Ian Maclean Smith, an assistant professor of internal medicine at S.U.I. and Dr. Mary Elizabeth Godfrey, an Iowa Trudeau Society fellow, who have been making an intensive study of this major problem, say that the answer can be nothing other than a thoroughgoing reemphasis upon aseptic technics.

In hospitals, we and everyone else who approach patients must wear face masks under certain circumstances; we must wash our hands between contacts with different patients (keeping our hands away from our noses in the meantime); and we must reexamine all aspects of hospital routine to make sure that patients aren't harmed, rather than helped, during their stay in such an institution.

A study of pathologists' reports on the 536 autopsies performed at University Hospitals, Iowa City, during 1956 has shown that antibiotic-resistant Staphylococci were the primary cause of death in 4 per cent of cases, and were a contributing cause of death in 14 per cent. Though this type of infection is a particular threat to newborns, other hospital patients are endangered too. Indeed, the Staphylococcus, according to Dr. Smith, has replaced the Pneumococcus as "the old man's friend" —i.e., the agent most likely to kill off elderly patients almost painlessly.

The diseases for which Staphylococci may be responsible are myriad. Pneumonia is probably the commonest severe effect, especially in infants, but the list includes impetigo, sycosis barbae, abscesses of the breast and of the lung, and kidney ailments. Boils, though not usually a serious ailment for the individual whom they affect, are sometimes important in starting a staphylococcal epidemic.

It must be emphasized that hospital Staphylococci are different from those seen in practices remote from large general hospitals. Many practitioners rarely see Staphylococci which are resistant to antibiotics.

At two Des Moines meetings of hospital personnel where Drs. Smith and Godfrey spoke on July 11, a number of stories were told—some by them and others by doctors in the audiences. In one of them—a possible rather than an actual incident—a physician was the culprit. He happened on the scene of a serious auto accident in time to give first aid to the injured. One of the passengers had a broken bone protruding through the skin. As he made up his mind how best to reduce the fracture so that the patient might be transported to the hospital, he inadvertently rubbed his forefinger over his own upper lip. Thereafter, supposedly, he transferred Staphylococci to the patient's open wound.

Too frequently, in recent years, asepsis has been neglected because antibiotics have compensated readily for any carelessness. With the new variants of Staphylococci, we are right back where we started!

Some hospitals have had trouble because of the inadequate laundering of blankets. Bed linen can be washed in water hot enough to sterilize them, but some blankets cannot. The answer, it would seem, is to use blankets that really hot water won't appreciably harm.

In order to save a few pennies, hospital personnel have washed disposable nasal catheters or other pieces of apparatus and have stored them in unsuitable solutions for reuse. Result: transfer of Staphylococci.

Dr. Smith said that there are enough variants of the bacillus so that it is possible, through phage typing, to trace a patient's infection to the individual who gave it to him in almost every instance, and almost invariably the source will be an attendant in the hospital. "Hospital visiting," he declared, "is bad only for the visitors, in so far as Staphylococci are concerned, though it may be important in the spread of other diseases."

But there is rarely any utility in identifying the source of infection. Of a typical 100 hospital attendants, he said, 10 will be found to have Staphylococci in their noses all of the time; another 10 will never have them; and the remaining 80 will be "transient carriers"—sometimes harboring the bacilli and sometimes not. Thus, if a hospital were to furlough or discharge the carriers among its employees, it would immediately lose half of them, and probably half of the remainder would show up as carriers on a retest.

For the present, Dr. Smith makes the following six recommendations:

1. Isolate pus-dripping patients.

2. Enforce rules requiring hand-washings and the wearing of masks.


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3. All personnel should behave as if they might be nasal carriers of Staphylococci.

4. Furlough personnel having boils or carbuncles.

5. Reexamine and tighten up housekeeping procedures.

6. Seek epidemiologic consultation from the Iowa State Department of Health.

Attention is called to the article on staphylococcal infections in the Department of Health section of this issue of the JOURNAL.

ON NOT GIVING MEDICINES

Today, when a Britisher goes to a doctor, he expects a bottle of medicine; when an American goes to a doctor, he expects a prescription for some pills. Otherwise, either of these patients is likely to complain to his friends: "He charged me $10, but all he did was *talk* to me." In consequence, more and more doctors are giving more and more medicine, and John Q. Public is measuring his success in life—in part at least—by how well-filled his medicine cabinet has become.

The AMA ought to give a medal, occasionally, to doctors who refuse to order medicines for some of their patients! Many preparations in use today are potentially harmful, and many are valueless. Many pills are prescribed but never taken. Many of the pills that are prescribed are unnecessary for restoration of the patient's well being.

Except for our knowledge that patients expect them, is there any reason why we keep doling out more and more pills? A recent book by Hollender entitled THE PSYCHOLOGY OF MEDICAL PRACTICE* deals with one facet of this problem. Hollender asks, "What do we understand when the physician states, 'I gave the patient a prescription because he expected me to give him one'?" It is true, he says, that there are patients who expect or even demand some form of medication, and it is also true that some feel their case is hopeless and that their doctor has forsaken them unless they are given pills or shots. Consequently, even though medicine will do no good, they must be given it along with some psychotherapy.

But Hollender says it is likewise undeniable that "there are also physicians who do not feel satisfied unless they write a prescription. They do not face their internal need; instead, they project it. As a result, 'I need to prescribe' is changed to 'He forces me to prescribe.' The operation of this mechanism should surely be suspected when a physician makes a sweeping generalization to the effect that no patient is satisfied unless he is treated with a pharmacological agent."

Many physicians are simply too busy to sit down and explain to the patient why he does not need any medication. One young doctor spent 30 minutes explaining to a patient whose complaint was a three-day-old bee sting that salves were unnecessary. Subsequently, he decided that if such a situation were to recur, he would prescribe an innocuous salve and save himself 25 minutes. It is in just such a connection, as Hollender says, that we must ask ourselves, "Whom does the physician treat?" In this instance, we must answer, "Himself."

In such cases, some physicians prescribe a placebo which they know to be inert; others prescribe medications which they are confident will be beneficial but which are in reality inert. In this regard, it might be said that it is all right to fool the patient, if the doctor himself is not fooled.

It would seem that we should honor the brave doctor who does not prescribe antibiotics for every cold, and who does not give shots to every patient who complains of fatigue. Let us remember that physicians who prescribe too freely don't treat their patients; they treat themselves.

* Hollender, Marc H.: THE PSYCHOLOGY OF MEDICAL PRACTICE. Philadelphia, W. B. Saunders Company, 1958. $6.50.

THE WELL-DRUGGED DRIVER

Many drugs prescribed today are likely to produce effects dulling mental, sensory and physical reactions. Since so many people propel themselves about in machines of great power which require split-second judgments and timing, the doctor has a clear responsibility. He must know thoroughly both the drug and the patient.

Untoward reactions of the idiosyncratic and allergic type can well be foretold by careful test dosage. We are accustomed to test-dose quinidine and a few other potent drugs, but the practice ought to be broadened. Drowsiness produced by antihistaminics and motion-sickness drugs varies greatly both as to individuals and also as to product. Only after prior trial should a person under treatment with these drugs feel free to drive a car. Many of the drugs we use today are effective only in their full pharmacologic dosages. As amounts are increased, side effects must be watched for. Full dosages of the tranquilizers may drop the blood pressure enough to cause transient faintness or dizziness. One shudders to think of such a spell occurring to a driver traveling 70 m.p.h.

There has been something in the medical literature recently about a suspicion that chlorpromazine can bring out latent convulsive disorders in persons unsuspected of having such a defect.

Fortunately, the newer antihypertensive ganglionic blocking agents, when regulated, do not cause syncope while a patient is in the sitting position. However, an important side-effect of these agents in relation to driving is that blurring of vision and sluggishness of accommodation may be produced.

The amphetamine group of drugs is widely used for a number of conditions, from alcoholism to obesity. It should be noted that a reactive period of fatigue, depression and difficulty in concentration occurs in some people following initial stimulation. A person may safely take this type of drug to promote alertness for two hours of driving—but no longer. He should then give up the wheel. Multiple doses of these drugs on long automobile trips are distinctly not recommended.

The amount of hypnotics sold would indicate that people must be taking them night and day. Some so-called "short-acting" hypnotics can dull the sensorium for as long as 24 hours from a single dose, in certain individuals.

Our profession is working valiantly to promote safety features in automobiles. While we have been pointing out the mote in the manufacturer's eye, have we failed to see the beam in our own—potent drugs prodigally prescribed?

—Editorial, NEW YORK J. MED., 58:2193-2194, (July 1) 1958

ACP MEETING IN MILWAUKEE

The Midwest Regional Meeting of the American College of Physicians will be held at the Milwaukee County Hospital, in Milwaukee on September 27. The Midwest Region includes Illinois, Indiana, Iowa, Minnesota and Wisconsin, where there are a total of about 1,000 ACP members.

A scientific program of 22 papers of 15 minutes each has been arranged. In addition, there will be a luncheon, a banquet and evening entertainment. Special events are being planned for the doctors' wives who accompany their husbands. There will be no registration fee.

For further information, address Dr. Joseph W. Rastetter, Department of Medicine, Marquette University School of Medicine, Milwaukee 13.

MANUAL OF APPROVED IMMUNIZATION TECHNICS

Under date of October, 1957, the State Department of Health has issued a manual of approved immunization procedures and technics prepared by Dr. Madelene M. Donnelly, director of the Division of Maternal and Child Health, with the assistance of Dr. Ruth McChesney Yohe, a Des Moines pediatrician, Leone B. Johnson, R.N., and Dr. Ralph H. Heeren, director of the Division of Preventable Diseases.

In the foreword, Dr. E. G. Zimmerer, the commissioner of health, has said, "The material . . . represents the latest available, reliable information adapted to the particular problems of Iowa."

Physicians may secure copies by phoning or writing to the Department.

ENDORSEMENT OF BCG VACCINE WITHHELD

At its San Francisco meeting, the executive council of the American College of Chest Physicians adopted the following resolution on June 22:

"In view of the vital interest in improving public health and welfare, and in the eradication of diseases of the chest in particular, our position regarding the use of BCG (bacillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time, there is insufficient evidence that significant protection is afforded by its use. The Council fully endorses the antituberculosis control program of the U. S. Public Health Service which includes research in BCG, and urges the continued support of their program."

MEAT FOR PREMATURE INFANTS

Anemia and iron deficiencies in premature infants can be partially overcome through the early addition of meat to their diet. This dietary supplement, given within two to four weeks after birth, has particular value in increasing red cell volume and circulating hemoglobin mass, and in building iron reserves.

These conclusions were advanced by Drs. Thomas R. C. Sisson and Lorraine E. Whalen, of Rochester, New York, in the June issue of the AMA JOURNAL OF THE DISEASES OF CHILDREN.* The anemia and iron deficiency, they declared, is almost inevitable in premature infants during the first year of life.

Since meat protein is well absorbed and utilized by infants, they undertook to discover whether adding meat to the diet would supply the needed iron. During their year-long test, 15 of a group of 35 babies were given meat supplements in addition to the customary diet, beginning between the second and fourth week of life. The test group showed an increase in red cell volume and hemoglobin mass between the sixth and eighth week which the control group failed to exhibit before the twelfth week. Furthermore, in the babies in the control group a decline in blood values began shortly, and in some of them a medicinal iron treatment was required.

Following their early gain, the blood values of the meat-fed infants remained at a constant level from the eighth to the thirteenth week, when they again showed an increase. The gain continued during the remainder of the year, and a definite "increase in iron stores" was noted by the time of their first birthdays.

Strained meats, the authors said, were well tolerated by all 15 infants, and the frequent gastric distress associated with the administration of medicinal iron was avoided.

* Sisson, T. R. C. and Whalen, L.: Meat in the diet of premature infants: II Influence on red cell volume and hemoglobin mass. AMA J. DIS. CHILD., 95:626-636, (June) 1958.

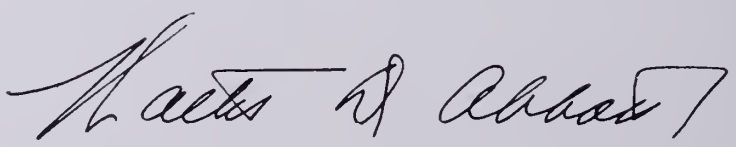
President's Page

MENTAL HEALTH

So as to arouse interest and provide training for member physicians in the field of mental health, county medical societies are being urged by the ISMS Mental Health Committee to schedule one or two programs on psychiatry or psychosomatic medicine during the coming year. Guest speakers can be provided to the societies that desire them.

Efforts are also being made to arrange conferences between physicians in various localities and the staffs of the state hospitals. Psychiatrists in private practice are promoting such gatherings, and increased cooperation of all concerned is sure to result.

As we come to recognize the growing volume of mental illness and the necessity for legislation to cope with it, we must establish liaison relationships with the lay organizations that have interested themselves in such problems, we must coordinate and sponsor activities beneficial to mental health, and we must cooperate with our Woman's Auxiliary in promoting them.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

INJURIES OF THE HAND, by *Ronald Furlong*, F.R.C.S. (Boston, Little, Brown and Company, 1957. $9.00).

CORRELATIVE NEUROANATOMY AND FUNCTIONAL NEUROLOGY, NINTH EDITION, by *Joseph G. Chusid*, M.D., and *Joseph J. McDonald*, M.D. (Los Altos, Calif., Lange Medical Publications, 1958. $4.50).

CANCER AND THE ATOMIC AGE, by *Clement A. Tavares*, M.D. (New York City, Vantage Press, Inc., 1958. $3.50).

FUNDAMENTALS IN CARDIOLOGY, by *John B. Wild*, M.D. (Springfield, Illinois, Charles C Thomas, 1958. $4.50).

CLINICAL ENZYMOLOGY, ed. by *Gustav J. Martin*, Sc.D. (Boston, Little, Brown and Company, 1958. $6.00).

A HISTORY OF PUBLIC HEALTH, by *George Rosen*, M.D., Ph.D., M.P.H. (New York City, MD Publications, Inc., 1958. $5.75).

1957-1958 YEAR BOOK OF ENDOCRINOLOGY, ed. by *Gilbert S. Gordan*, M.D., Ph.D. (Chicago, The Year Book Publishers, Inc., 1958. $7.50).

MANUAL OF MEDICAL EMERGENCIES, THIRD EDITION, by *Stuart C. Cullen*, M.D., and *E. G. Gross*, M.D. (Chicago, The Year Book Publishers, Inc., 1958. $5.75).

LOVE, SKILL & MYSTERY: A HANDBOOK TO MARRIAGE, by *Theodor Bovet*, M.D. (Garden City, New York, Doubleday & Co., 1958. $3.50).

HOW TO LIVE WITH DIABETES, by *Henry Dolger*, M.D., and *Bernard Seeman*. (New York City, W. W. Norton & Co., 1958. $3.50).

THE PSYCHOLOGY OF MEDICAL PRACTICE, by *Marc H. Hollender*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $6.50).

CIBA FOUNDATION SYMPOSIUM ON THE CEREBROSPINAL FLUID: PRODUCTION, CIRCULATION AND ABSORPTION, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor*, B.Sc. (Boston, Little, Brown and Company 1958. $9.00).

ORTHOPEDIC DISEASES: PHYSIOLOGY, PATHOLOGY, RADIOLOGY, by *Ernest Aegerter*, M.D., and *John A. Kirpatrick*, Jr., M.D. (Philadelphia, W. B. Saunders Co., 1958. $12.50).

MODERN CLINICAL PSYCHIATRY, FIFTH EDITION, by *Arthur P. Noyes*, M.D., and *Lawrence C. Kolb*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $8.00).

ORR'S OPERATIONS OF GENERAL SURGERY, THIRD EDITION, by *George A. Higgins*, M.D., and *Thomas G. Orr, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $20.00).

BOOK REVIEWS

GYNECOLOGICAL & OBSTETRIC PATHOLOGY, WITH CLINICAL AND ENDOCRINE RELATIONS, FOURTH EDITION, by *Emil Novak*, M.D., and *Edmund R. Novak*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $14.00).

This is the fourth edition of the standard presentation of gynecologic and obstetric pathology most widely used in this country. Dr. Emil Novak passed away over a year ago, but the basic work that he originated and enlarged over a period of 18 years remains.

In reviewing this book, it is difficult for one to think of any criticism. The entire volume has been brought up to date with additions of new illustrations and new material on cytology and placentation.

For the practitioner who has no previous edition of Novak in his library, this edition certainly is a must!

—*Claude H. Koons*, M.D.

CLINICAL OBSTETRICS AND GYNECOLOGY: (1) Medical Problems in Pregnancy; (2) Management of Endocrine Problems in Pregnancy, ed. by *Allen C. Barnes*, M.D. (New York City, Paul B. Hoeber, Inc., 1958. $18 per year, for four consecutive volumes).

This is the first volume of what is to be a series of four books per year on clinical obstetrics and gynecology.

This volume deals with two facets of pregnancy, the medical and the endocrine, from a gynecologic standpoint.

The presentations on each of these broad topics are written by recognized authorities on the topics they discuss.

Each new volume that appears will review one topic in obstetrics and one in gynecology.

This new technic for disseminating up to date and accurate teachings is a splendid one, and anyone wanting such information should subscribe to the series. In this first installment, some of the chapters are not so clear and well-written as others. This happens, of course, whenever there is multiple authorship. But such faults do not pervade the volume, and they are compensated for by the wealth of pertinent and practical material that is offered.

—*Claude H. Koons*, M.D.

YOU CAN INCREASE YOUR HEART POWER, by *Peter J. Steincrohn*, M.D. (Garden City, N. Y., Doubleday & Co., 1958. $4.95).

DIETARY PREVENTION AND TREATMENT OF HEART DISEASE, by *John W. Gofman*, Ph.D., M.D., *Alex V. Nichols*, Ph.D., and *E. Virginia Dobbin*. (New York, G. P. Putnam's Sons, 1958. $3.95).

Both of these volumes are directed to the layman. They reflect the rapid growth in knowledge of heart disease and the expanding interest in the nation's No. 1 killer on the part of an enlightened public.

Dr. Steincrohn, author of a nationally syndicated medical column, has put together a volume in the form of answers to letters from readers who have inquired about such things as cholesterol in the diet, anticoagulants, high blood pressure, air travel, tobacco and alco-

hol in relation to heart disease. The professional reader will be interested chiefly in the author's facility of expression and ability to explain issues to the layman in non-technical language. The book is one that can be safely recommended to the patient who wants the *do's* and *don'ts* of heart disease spelled out.

The Gofman volume is, from a medical standpoint, considerably more controversial. Based as it is upon the University of California investigation with the ultracentrifuge of blood lipoproteins in relation to coronary heart disease, the book accepts as established the thesis that such lipoprotein blood study is the only way to classify individuals who are potential candidates for a "heart attack." On this basis, the authors have elaborated diet therapy for reducing the levels of particular lipoproteins in the patient's blood. For some individuals, according to the California group, this involves restriction of saturated fats; in others, it requires restriction of carbohydrates. Extensive menus and recipes are given for the use of vegetable oils and for the substitution of carbohydrates, in addition to comprehensive tables of food composition, with saturated and unsaturated fats separately listed.

—*Herman J. Smith*, M.D.

1957-1958 YEAR BOOK OF ORTHOPEDICS & TRAUMATIC SURGERY, ed. by *Edward L. Compere*, M.D. (Chicago, The Year Book Publishers, Inc., 1958. $7.50).

This volume combines the year's advances in both orthopedic and traumatic surgery. As in the past, a wide variety of subjects are covered. In addition to the common orthopedic topics, you will find references to such problems as the operative treatment of cerebral palsy, and there is an excellent section on plastic surgery.

Certainly all surgeons will find this volume a valuable addition to their libraries.

—*Everett M. George*, M.D.

DIAGNOSTIC MEDICAL PARASITOLOGY, by *Edward K. Markell*, Ph.D., M.D., and *Marietta Vogue*, Ph.D. (Philadelphia, W. B. Saunders Company, 1958. $7.00).

This text should be one of the most valuable ones in the library of the gastroenterologist or other practitioner who finds it necessary to perform stool examinations. The common intestinal parasites, as well as the more important exotic ones occasionally found in the United States, are unusually well presented. The diagnostic and differential features are concisely outlined and clearly illustrated.

Because the text is devoted to diagnosis, much of the detailed material on life cycles and biology of the various organisms has quite properly been omitted. For the same reason, treatment has not been included.

The detailed instructions for the preparation of stool and blood specimens are unusually helpful. Formulae for the various diagnostic and preservative média are included. And the chapter on "Pseudoparasites and Pitfalls" will be especially useful in preventing the occasional examiner from letting artifacts lead him into diagnostic errors.

The volume is very strongly recommended for laboratory bookshelves. —*Samuel J. Zoeckler*, M.D.

SKIN GRAFTING, THIRD EDITION, by *James Barrett Brown*, M.D., and *Frank McDowell*, M.D. (Philadelphia, J. B. Lippincott Company, 1958. $15.00).

This new edition of Brown and McDowell's text should be invaluable to any surgeon who grafts skin or treats burns. The earlier editions have been amplified by new material, and many new photographs of typical cases have been reproduced, greatly enhancing the usefulness of the book.

The jacket illustration, in color, emphasizes the desirability of removing exuberant granulations from a raw surface in preparation for grafting. The written material has a style that is easily readable, and indeed there are certain passages that the reader will scarcely forget. The following is an example: "If there is any worthwhile criticism of the open air method [of treating burns] it might be its appeal to the lazy and unversed, to those who are disinterested in burns, but would not mind accepting the case of an occasional burned patient if it does not entail any personal labor. In such hands, it is easy for it to become the open treatment of neglect."

The entire field of reparative plastic surgery is covered on a regional basis, under suitable headings for easy reference. Some subjects of recent interest include skin banks, the cutting of postmortem homografts, and the treatment of cathode-ray and radiation burns. These inclusions make the third edition of Brown and McDowell the most up-to-date as well as the most authoritative reference in its field.

—*Julian M. Bruner*, M.D.

A PRIMER OF COMMON FUNCTIONAL DISORDERS, by *Jack W. Fleming*, M.D. (Boston, Little, Brown and Company, 1958. $5.00).

This is an easily readable, basically oriented and essentially correct book of only 170 pages. It does not attempt to go into great detail concerning the psychologic dynamic of the common functional disorders commonly known as the psychologic or psychosomatic syndromes, but attempts, rather, to give some practical, direct and substantially satisfactory methods of dealing with this type of illness.

Now, as it has always been, it is one of the important functions of the physician to relieve discomfort, and there is no doubt in my mind that this book will help him do that for a great many people. Because partial recovery can sometimes be more discouraging than no recovery at all, the physician must be especially careful to prepare patients for the results of merely palliative therapy.

Discomfort—though an unlikely sort of "tool"—is something which a physician can sometimes get patients to use as a self-help device. In other words, patients can be enabled to use their anxiety and psychic pain to their own advantage.

—*Howard V. Turner*, M.D.

FIFTY YEARS OF NEUROSURGERY—A PERSONAL STORY, by *Ernest Sachs*, M.D. (New York, The Vantage Press, 1958. $3.50).

Sir Victor Horsley, the father of neurologic surgery, had been the first to remove a spinal-cord tumor successfully, as far back as 1888. Ernest Sachs—influenced

in part by his uncle Bernard Sachs, an eminent early neurologist in this country—traveled to London in 1907 with the avowed purpose of becoming a neurologic surgeon. (Harvey Cushing had returned from this country to Europe in 1903 to devote himself to neurologic surgery.)

When he had completed two years of work in Horsley's laboratory, Dr. Ernest Sachs returned to New York, and in 1911 he joined the medical school of Washington University, St. Louis, as a part of the faculty reorganization that the Flexner Commission's report had necessitated there. In 1920, he was appointed chairman of the Department of Neurologic Surgery at Washington University, the first man to head such a department in a medical school anywhere.

In human fashion, Dr. Sachs has chronicled a half-century of medical history, especially as it has been related to neurosurgery. The trials, the failures, the triumphs, the organizational woes, the friendships and the personality clashes that he and his fellow specialists experienced—all of them find expression in his book. At times, the reminiscences are somewhat "bittersweet."

The non-medical reader, along with the physician, will find much that is interesting in the volume. The book is small (186 pages), and clearly written to make reading easy. Medical vocabulary is kept to a minimum. For your reviewer, the most enjoyable sections of the book were those dealing with the fascinating medical characters whom Dr. Sachs had the privilege of knowing during his long career. You will enjoy having FIFTY YEARS . . . in your library to read at odd moments, or you may wish to make a gift of the book to a colleague or to a non-medical friend.

—*John T. Bakody,* M.D.

PEDIATRIC INDEX, by *Edwin F. Patton,* M.D. (St. Louis, The C. V. Mosby Company, 1958. $13.50).

Though at first glance I was altogether confused as regards the general format and purpose of this book, as I examined it further I realized that it contained a phenomenal compilation of material on pediatric subjects.

The first section of this INDEX presents various complaints, symptoms and signs in alphabetical order. Under each heading are listed the diagnostic concomitants in patients of three age groups—neonatal, infancy and older. As one scans those concomitants, he finds several possibilities or a presumptive diagnosis. Then he refers to the second section of the book, where—alphabetically again—these possibilities or presumptive diagnoses are listed and the technics for differentiating them are presented. In this second division, one is told the conditions which must be ruled out, how the diagnosis can be confirmed and—briefly—what treatment should be instituted.

There is a third section entitled "Special Data and Technique" which seems rather anticlimactic and does not add materially to the value of the INDEX.

The two-column format and the style of type enhance the readability of the book. It is attractively bound, but the cover is rather pliable, a factor which may prove rather disadvantageous as far as durability is concerned. —*Marion E. Alberts,* M.D.

AMA PUBLIC RELATIONS INSTITUTE

Doctors are asked to reserve Wednesday and Thursday, August 27 and 28 for attending the AMA Public Relations Institute, at the Drake Hotel, in Chicago. Members of public relations committees should be particularly interested.

The program has not yet been completed, but it has been announced that "Seven Paths to Fitness," a new AMA exhibit, will have its debut during the meeting. The display emphasizes the following avenues to health: nutrition, relaxation, play, exercise, dental care, medical care and work. It is primarily intended for professional audiences such as physicians, educators and others who have responsibility for maintaining the fitness of people other than the members of their immediate families.

IMPROVED SURGICAL DRESSING

Owens Surgical Fabric, a rayon replacement for the traditional cotton, is said to constitute the first improvement in surgical dressings since cotton came into general use more than a century ago.

Developed by Dr. Neal Owens, of New Orleans and manufactured by the Surgical Products Division of the American Cyanamid Company, the rayon dressing has been tested at various hospitals for several years. Among the advantages claimed for the fine-gauge fabric is the prevention of invasion by capillary buds and consequent painful and damaging adhesion of the dressing to the wound. Nevertheless, it is said to permit adequate drainage through the mesh. It can be sterilized by autoclaving.

CANCER RESEARCH IN DES MOINES

A team of investigators at Mercy Hospital and Drake University, in Des Moines, is making studies of cancerous tumors in a highly inbred strain of mice. The project is being subsidized by the Iowa Division of the American Cancer Society.

Essentially, the work consists of an intensive search for basic information about the visible changes in two cellular constituents—the mitochondria and the Golgi materials. The malignant cells are lifted from the tumors on the skin and in the livers of the mice for microscopic study. The interest centers on the structural and physiologic changes which take place as tumors are induced by means of carbon tetrachloride or methylcholanthrene, and also after the resultant tumors have been irradiated.

Paul A. Meglitsch, Ph.D., associate professor of biology at Drake, is doing much of the basic analysis of the cells. Frank C. Coleman, M.D., and Noble W. Irving, M.D., are performing the irradiation work at Mercy.

Iowa Academy of General Practice

LEST WE FORGET!

There has been a drastic change in the morbidity and mortality statistics of poliomyelitis during the past three years, but the Salk vaccine may not have been the only factor responsible. There are many who feel that the decline may have been due, in part at least, to our having reached the low point in a cycle of infection, and those people predict an increase in the natural incidence of the disease within the next few years.

No one, of course, denies the efficacy of the vaccine altogether. It has succeeded—in great measure because of the efforts of various groups in promoting the vaccination program, and because of the work that physicians have done as individuals in making sure that their patients received it. But the task is still unfinished, and if we don't keep working at it, we shall have cause to be sorry.

The cyclical variations in the poliomyelitis death rate are illustrated by some statistics recently released by the Iowa State Department of Health. From those figures, we learn that in 1919 and again in 1942 deaths from poliomyelitis in this state were even rarer than they have been in 1956 and 1957. In some of the years that intervened between 1942 and 1956, of course, the rate rose quite high. The mortality rate per 100,000 in 1946 was 2.06; in 1948 it was 3.03; in 1949 it was 3.27; and in 1952—the highest ever—it was 6.22 per 100,000 people. Thus, if we think the 1955, 1956 and 1957 mortality rates (0.53, 0.19 and about 0.25, respectively) foreshadow the end of poliomyelitis as a killer, we may be wrong. And we must not forget that polio causes paralysis more often than it causes death. Thus, the death rates do not constitute a true index of its seriousness.

Though vaccine was desperately scarce only a few years ago, it is scarce no longer, and we must do everything we can to provide its protection to everyone. Each year there are over 60,000 births in the State of Iowa. It is upon these new citizens that we need to focus our attention, as well as upon the stragglers who have not previously been vaccinated. Though it may be reasonable to suppose that with fewer cases of clinical poliomyelitis nowadays, the danger of exposure to the disease has been lessened, we must remind ourselves that no one is yet sure how the disease is spread. Of one thing we can be absolutely certain—if we do not continue to promote poliomyelitis vaccinations, we can expect a definite rise in the morbidity and mortality rates!

Only if each of us remembers that he, himself, is the man responsible for maintaining vigilance in his locality, will we succeed in maintaining a maximum vaccination program!

TENTH ANNUAL MEETING AND SCIENTIFIC PROGRAM

The Iowa Chapter of the American Academy of General Practice will hold its Annual Meeting at the Savery Hotel, in Des Moines, on September 21, 22 and 23.

The annual business meeting and election of officers will take place at 3:00 p.m. on Sunday, September 21. As members, you are urged to participate in YOUR meeting. The Board of Directors sincerely hopes that you will. That afternoon business meeting is the only session which has been planned for Sunday. Following it, you will be free to relax or to carry out whatever social plans you have made.

Both non-member and member physicians are urged to attend the two-day scientific symposium on Monday and Tuesday, September 22 and 23. The committee in charge has endeavored to choose subjects in which all general practitioners will be interested.

The Annual Banquet will be held on Monday evening, September 22, preceded by a cocktail hour and followed by dancing. In previous years, this evening of fellowship has been thoroughly enjoyable, and this year it will be no less so.

Registration will begin Sunday afternoon.

SCIENTIFIC PROGRAM

Monday, September 22

Morning

"Public Health Problems of General Practice"—Joseph G. Molner, M.D., Professor of Preventive Medicine and Public Health, University of Michigan, Detroit

"Recent Developments in Diabetic Therapy"—Priscilla White, M.D., Boston

"Bronchial Asthma"—L. J. Halpin, M.D., Cedar Rapids

"Diabetes and Metabolism"—A. L. Sahs, M.D., Professor and Head of the Department of Neurology, S.U.I. College of Medicine, Iowa City

Luncheon Address—Mr. Loren Hickerson, Executive Secretary of the S.U.I. Alumni Association, Iowa City

Afternoon

[Topic to Be Announced]—Dr. White

"Health Problems in the Care of the Aged"—Dr. Molner

"Allergic Emergencies"—Dr. Halpin

"Neurologic Problems Encountered in Geriatrics"—Dr. Sahs

Tuesday, September 23

Morning

"Acute Coronary Disorders"—Francis Murphy, M.D., Clinical Professor of Medicine at the Marquette University Medical School, Milwaukee

"Diagnosis and Treatment of Various Kinds of Strokes"—Clark H. Millikan, M.D., Associate Professor of Neurology and Psychiatry, University of Minnesota Graduate School of Medicine, Rochester

"Technic of Anticoagulant Therapy"—N. W. Barker, M.D., Professor of Internal Medicine, University of Minnesota Graduate School of Medicine, Rochester

"Coma"—Dr. Millikan

Luncheon Address—Jack McKenty, M.D., obstetrician, Winnipeg

Afternoon

"Some Aspects of the Handling of Erythroblastosis"—Bruce Chown, M.D., Professor of Pediatrics, University of Manitoba, Winnipeg

"Indications and Contraindications for Anticoagulant Therapy"—Dr. Barker

"Congestive Heart Failure"—Dr. Murphy.

Twelve hours of Category I credit will be granted to AAGP members who attend both days of this scientific session.

ANNUAL MEETING, COLORADO MEDICAL SOCIETY

The annual sessions of the Colorado State Medical Society will be held at the Broadmoor Hotel in Colorado Springs, September 24-27. One of the principal features will be a symposium on alcoholism. In addition, there will be a general session and sectional meetings devoted to subjects in surgery, internal medicine, otolaryngology, urology and laboratory medicine. Detailed programs can be secured from the offices of the Society, 835 Republic Building, Denver 2.

WESTERN CARDIAC CONFERENCE

The Seventh Annual Western Cardiac Conference, to be held in Phipps Auditorium, Denver, will consist of three parts: "Modern Concepts of Electrocardiographic Interpretation," August 11-12; "Seminar on Hypertension," August 13; and "Recent Advances in Cardiovascular Diseases," August 14-15. The sponsoring organizations include the Colorado Heart Association, the Colorado State Department of Public Welfare, Fitzsimons Army Hospital, the University of Colorado School of Medicine and the Denver V-A Hospital.

The faculty will consist of the following, in addition to Colorado doctors: Edwin Boyle, Jr., M.D., of the Medical College of South Carolina; William Dock, M.D., of the State University of New York Downstate Medical Center; John W. Kirklin, M.D., of the Mayo Clinic; Edward Massie, M.D., of the Washington University (St. Louis) School of Medicine; Henry J. L. Marriott, M.D., of the University of Maryland; John H. Moyer, M.D., of Hahnemann Medical College, Philadelphia; and George E. Wakerlin, M.D., medical director of the American Heart Association, New York City.

Requests for detailed programs should be addressed to the Colorado Heart Association, 1636 Logan Street, Denver 3.

SECOND AAGP SYMPOSIUM ON INFECTIOUS DISEASES

Six medical schools will send top speakers to the Second Annual Symposium on Infectious Diseases, which is to be held in the Battenfeld Auditorium at the University of Kansas Medical Center, Kansas City, on Friday, September 19. The meeting will be jointly sponsored by the American Academy of General Practice and Lederle Laboratories, a division of the American Cyanamid Company.

The program will open at 9:00 a.m. with a 90-minute discussion of staphylococcal infections. Speakers on that topic will be Dr. Robert I. Wise, of Jefferson Medical College; Dr. William M. M. Kirby, of the University of Washington; and Dr. Harry F. Dowling, head of internal medicine at the University of Illinois.

There will be three other speakers—two evaluating new therapeutic agents and one reviewing perplexing disorders. Dr. R. Cannon Eley is a Harvard pediatrician; Dr. Thomas G. Ward is associate director of Lobund Institute at the University of Notre Dame; and Dr. Thomas H. Haight is an assistant professor of medicine, preventive medicine and public health at the University of Oklahoma, now on leave for service with the Cornell Medical College and New York Hospital.

Coming Meetings

In State

Sept. 21-23	**Annual Meeting, Iowa Academy of General Practice.** Savery Hotel, Des Moines

Out of State

Aug. 4-7	**International Committee of Military Medicine & Pharmacy.** Brussels, Belgium
Aug. 4-9	**International Congress of Microbiology.** Stockholm, Sweden
Aug. 4-12	**Selected Topics in Physiology and Pharmacology.** U. of California, San Francisco
Aug. 4-15	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Aug. 5-21	**Refresher Course, U. of Southern California School of Medicine.** Honolulu (and on board the *S. S. Matsonia* enroute there)
Aug. 11-14	**National Medical Association.** Hotel Schroeder, Milwaukee
Aug. 11-16	**Seventh Annual Western Cardiac Conference.** U. of Colorado Medical Center, Denver
Aug. 11-16	**World Federation of Occupational Therapists.** Copenhagen, Denmark
Aug. 12	**Pan-American Congress of Otorhinolaryngology & Bronchoesophagology.** Rio de Janeiro, Brazil
Aug. 12-24	**Fourth World Assembly of Israel Medical Association & Israel's Tenth Anniversary Celebration** (American Physicians Fellowship, Inc.). Tel Aviv, Jerusalem and Haifa
Aug. 15-17	**Rocky Mountain Radiological Society.** Shirley-Savoy Hotel, Denver
Aug. 15-20	**World Medical Association.** Copenhagen, Denmark
Aug. 18-21	**American Hospital Association.** Palmer House, Chicago
Aug. 18-30	**Course I Surgical Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Aug. 18-31	**Electrocardiographic Interpretation.** Michael Reese Hospital, Chicago
Aug. 19-22	**Biological Photographic Association.** Shoreham Hotel, Washington, D. C.
Aug. 20-23	**Internal Medicine.** U. of California Residential Conference Center, Lake Arrowhead, California
Aug. 20-27	**International Congress of Genetics.** Montreal
Aug. 21-23	**Chemical Organization of Cells, Normal and Abnormal.** Madison
Aug. 21-23	**Western Regional Meeting, International College of Surgeons.** Riverside Hotel, Reno
Aug. 23	**Interim Meeting. American Institute of Ultransonics in Medicine.** Bellevue-Stratford Hotel, Philadelphia
Aug. 24-29	**Thirty-sixth Annual Session, American Congress of Physical Medicine & Rehabilitation.** Bellevue Stratford Hotel, Philadelphia
Aug. 24-29	**World Federation for Mental Health.** Vienna, Austria
Aug. 25-27	**Second Annual Postgraduate Course, Prevention and Management of Athletic Injuries for Team Physicians, Coaches and Trainers.** U. of Colorado Medical Center, Denver
Aug. 27-29	**Anesthesiology.** U. of California, Los Angeles
Aug. 27-29	**Northwest Proctologic Society.** Sun Valley, Idaho
Aug. 27-30	**Strabismus.** Stanford U. School of Medicine, San Francisco
Aug. 29-30	**North Pacific Society of Internal Medicine.** Victoria, British Columbia
Sept. 1-6	**International Congress of Biochemistry.** Vienna, Austria
Sept. 1-7	**International Congress of Psychotherapy.** Barcelona, Spain
Sept. 2-4	**European Congress of Allergy.** London, England
Sept. 3-5	**Eighty-fourth Annual Session, Oregon State Medical Society.** Masonic Temple, Portland
Sept. 4-6	**American Association of Obstetricians & Gynecologists.** The Homestead, Hot Springs, Virginia
Sept. 4-9	**Pediatrics.** U. of Colorado School of Medicine, Denver
Sept. 5-6	**Minor Surgery, Lecture & Laboratory.** U.C.L.A., Los Angeles
Sept. 5-13	**International Congress of Tropical Medicine & Malaria.** Lisbon, Portugal
Sept. 7-11	**Fifth International Congress on Diseases of the Chest** (American College of Chest Physicians). Tokyo, Japan
Sept. 7-11	**International College of Surgeons, United States Section.** Atlantic City
Sept. 7-13	**International Society of Hematology & International Society of Blood Transfusions.** Rome, Italy
Sept. 8-12	**Comprehensive Review in Dermatologic Histopathology.** N.Y.U., N.Y.C.
Sept. 8-12	**International Congress of Ophthalmology.** Brussels, Belgium
Sept. 8-13	**Regional Anesthesiology.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 8-15	**International Association for Prevention of Blindness.** Brussels, Belgium
Sept. 8-19	**Office and Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Sept. 8-20	**Recent Advances in Surgery.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 9-12	**Collegium International Neuro-Psychopharmacologicum.** Rome, Italy
Sept. 10	**International College of Surgeons, Montana Surgical Section Meeting.** Billings
Sept. 11-13	**Saint John's Hospital Postgraduate Assembly.** Santa Monica
Sept. 12-13	**Northeastern Section, American Urological Association.** Equinox House, Manchester, Vt.
Sept. 12-15	**International Society of Bronchoesophagology.** Kyoto, Japan
Sept. 13-17	**Internal Medicine.** U. of California, San Francisco
Sept. 14-17	**Annual Convention, Washington State Medical Association.** Spokane
Sept. 14-21	**International Society of Cardiology.** Brussels, Belgium
Sept. 15-16	**Annual Assembly, Wisconsin Academy of General Practice.** Milwaukee Auditorium, Milwaukee
Sept. 15-26	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Sept. 15-26	**Normal and Pathological Physiology.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 17-18	**Twelfth Annual Postgraduate Assembly.** San Diego County General Hospital, San Diego
Sept. 17-20	**Annual Meeting, Nevada State Medical Association.** Elko
Sept. 18	**Medical Terminology.** U.C.L.A., Los Angeles
Sept. 18	**Tri-State Medical Assembly.** Shreveport, Louisiana.
Sept. 18-20	**Tenth Annual Meeting, Pacific Dermatologic Association.** Hotel del Coronado, Coronado, California
Sept. 18-20	**Obstetrics & Gynecology.** U. of California, San Francisco
Sept. 19	**Second Annual Symposium on Infectious Diseases (AAGP, Kansas University Medical Center and Lederle Laboratories).** Battenfeld Auditorium, Kansas University Medical Center, Kansas City, Kansas
Sept. 22-24	**Texas Academy of General Practice.** San Antonio
Sept. 22-25	**Kansas City Southwest Clinical Society.** Municipal Auditorium, Kansas City, Missouri
Sept. 22-26	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Sept. 22-Oct. 3	**Intensive Review of Internal Medicine (for Internists).** U. of Southern California, Los Angeles
Sept. 22-Oct. 3	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Sept. 22-Oct. 3	**General and Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Sept. 23-25	**Pediatrics for Pediatricians.** U. of Minnesota, Minneapolis.
Sept. 24-27	**Annual Session, Colorado State Medical Society.** Broadmoor Hotel, Colorado Springs
Sept. 24-28	**International Congress of Angiology & Histopathology.** San Remo, Italy
Sept. 25-27	**American Academy for Cerebral Palsy.** Sheraton-Biltmore Hotel, Providence, Rhode Island

(Continued on page xlix)

THE DOCTOR'S BUSINESS



Gifts of Securities to Minors

HOWARD D. BAKER

WATERLOO

In states where there are laws permitting gifts of cash or securities to minors, the high-bracket taxpayer can shunt a portion of his capital into a substantially lower income-tax bracket by a procedure that is much simpler than the setting up of a trust.

Legislation permitting transfers of this sort has not yet been adopted in Iowa, but it has been proposed, and no doubt it will be voted upon at the 1959 session of the General Assembly. At present, 39 other states have simplified the legal procedures for transferring either securities or cash and securities to children, through the enactment of so-called "custodian statutes." In 26 of them, gifts of both cash and securities can be made; in the remaining 13, only securities can be given.

"CUSTODIAN STATUTE" STATES

Arizona	New Jersey*
Arkansas	New Mexico
California*	New York*
Colorado*	North Carolina*
Connecticut*	North Dakota
Delaware	Ohio*
District of Columbia*	Oklahoma
Florida	Pennsylvania
Georgia	Rhode Island*
Idaho	South Carolina*
Indiana	South Dakota
Kansas	Tennessee
Maryland	Texas
Michigan*	Utah
Minnesota	Vermont
Missouri	Virginia*
Montana	West Virginia
Nebraska	Wisconsin*
Nevada	Wyoming
New Hampshire	

"Custodian statutes" permit an adult (who may be the beneficiary's parent) to hold securities (or cash and securities) for the benefit of the minor. Title vests in the minor, but the custodian is empowered to use the income and the securities for the minor's benefit. The income is taxed to the minor, unless such income is used to satisfy the donor's legal obligation to support the minor.

Under present federal income-tax law, no tax accrues against the minor on the first $600 of such income. For higher incomes, it is possible that the minor may be required to pay a tax, but still may qualify as a dependent for the purpose of the parent's income-tax return.

A gift tax is payable on such transfers, subject to the annual exclusion of $3,000 and the lifetime exemption of $30,000 ($6,000 and $60,000, respectively, for gifts by married couples).

Under estate-tax provisions, it is held that the value of property transferred by a donor to himself as custodian for a minor shall be included in the donor's estate if he dies before the beneficiary reaches his majority. Thus, there is an advantage in the appointment of someone other than the donor as the custodian—perhaps the donor's wife.

INTANGIBLE ADVANTAGES

Besides having advantages from an income-tax standpoint, gifts of securities to teen-age children are worthwhile in that they are a means for letting youngsters have what has come to be known as a "share in America," a proprietary interest in our free-enterprise system.

Our public schools make an effort to teach business principles and technics, but securities ownership is probably the only means by which young men and women can be led to acquire more than an academic familiarity with the securities markets and the values they reflect, with corporate balance sheets, and with the relations between business and government, on the one hand, and between business and labor, on the other.

In addition, as the children grow older and start earning money for themselves, many of them can be counted upon to continue their interest and to do an especially competent job of increasing and managing their investments.

* These states permit gifts of securities only. Others permit gifts of both cash and securities.

STATE DEPARTMENT OF HEALTH

Edward J. Zimmer
COMMISSIONER

STAPHYLOCOCCAL INFECTIONS IN THE NEWBORN

(An announcement prepared by the Committee on Control of Infectious Diseases of the American Academy of Pediatrics.)

In the past few years there has been increasing awareness of the problem of infections due to antibiotic-resistant staphylococci. Recent studies have stressed certain aspects which indicate a particular hazard for infants in newborn nurseries:

1. While there is no striking increase in staphylococcal infections in the public at large, there is an appreciable incidence of these infections in hospitalized patients.

2. There is a high carrier rate of antibiotic-resistant strains of staphylococcus in hospital personnel and in long-term patients.

3. Certain strains of staphylococcus appear to become established in a particular hospital, and different hospitals may be repositories for different strains.

4. The development of resistant strains from an originally sensitive one in a case of infection is not a very large problem. The major problem is in cross-infections by resistant strains already existent in the hospital.

5. The chance for development of staphylococcal infection in a hospital is greatly increased in individuals who have decreased resistance to infection in general.

It is apparent from the above that infants in newborn nurseries are in particular jeopardy. Several epidemics of staphylococcal infections in newborn nurseries have already been reported. In these, a specific type of staphylococcus is usually found to predominate in the cultures from lesions and is usually present in high incidence in the noses of babies, nurses and attendants, and may be found in the air, in the dust, or on the furniture of the nurseries. Studies have indicated that these infections *do not* come from the mothers, but from the hospital environment.

Of great significance is the fact that newborn infants may not develop their infections for several days to weeks after they have returned home. This demands that close surveillance of newborn infants be continued after discharge from the hospital.

Certain recommendations seem justified at the present time:

1. There should be strict adherence to the principles of aseptic and antiseptic technic as set forth in the "Standards and Recommendations for Hospital Care of Newborn Infants."

2. All hospitals should establish forthwith a Committee on Control of Cross Infections with one person as the responsible individual. In maternity hospitals and children's hospitals, this person would logically be a pediatrician.

3. The Committee should be empowered to make and enforce recommendations for the prevention, investigation and control of staphylococcal and any other type of infection in the hospital population.

4. The Committee in each hospital should arrange for culturing the disease-producing strains and for identifying the "hot" strains in the affected infants and in the contacts and environment of the hospital. Specific classification of the staphylococci will require determination of antibiotic sensitivity and phage typing, and arrangement with local, state or federal health agencies may be necessary.

5. Every visiting physician should be circularized as to the importance of informing the Committee at once of the occurrence of any infection in a newborn or its mother *after* discharge from the hospital. (In one hospital, a postcard technic for ward patients is in use, wherein the mothers are instructed to report back one week following discharge concerning the condition of the baby, particularly as regards skin infections, failure to gain or other unusual symptoms.)

6. If an outbreak of staphylococcal infections occurs in a nursery, culturing of the lesions of affected babies and of the noses of all other babies and of all staff personnel should be carried out. The specific measures for control of the epidemic should be worked out by the Committee in conjunction with the local public health authorities.

7. Distribution of information concerning staphylococcal infections in the newborn would be expedited if information about outbreaks were reported to the Committee on Fetus and Newborn

and the Committee on Control of Infectious Diseases of the American Academy of Pediatrics.

8. It is recommended that all staphylococcal infections in the newborn period be made reportable.

—Reprinted from J.A.M.A., **166**:1500, (Apr. 12) 1958.

TB TESTS FOR CATTLE

The bovine tuberculosis-testing program in Iowa was started in 1919, when the General Assembly made an appropriation for the purpose. A limited amount of tuberculin testing had been done previously. Since that time, a cooperative program sponsored by the Iowa Department of Agriculture and the U. S. Department of Agriculture has been under way. The beginning was gradual, but the tempo increased so that by 1927 an intensive program was in progress. In Iowa, veterinarians have now tested more than 30,000,000 cattle. Over 350,000 of them have been classed as positive reactors and sent to slaughter. Testing has been carried out on an area (county) basis. Entire counties have been tested and retested at regular intervals, and infected herds have been retested until they were entirely negative on repeated tests.

As the infection rate in each county was reduced to less than 0.5 per cent, the county was designated by the U. S. Department of Agriculture as a "Modified Accredited Tuberculosis-Free Area." On December 1, 1935, the last county in Iowa reached that milestone, and the entire state was "accredited." Historically, is of interest to note that Iowa was the thirty-second state to be accredited. The first state was accredited in 1928, and the last state in 1940.

In order for the state to maintain this status, retesting on a county basis must be done repeatedly. Counties are re-accredited for a specific period of time, the length of which depends upon the infection rate found in the last previous test. A county is re-accredited for a six-year period when less than 0.2 per cent of the cattle have been found infected. If between 0.2 and 0.5 per cent are infected, the re-accreditation is for a three-year period. Thus, the present program calls for a retest at a three-year or a six-year interval. Originally, all of the cattle in each county were tested. For re-accreditation under the current policy, a portion of the cattle in a county are tested to determine the infection rate.

In addition to this periodic testing for re-accreditation, tuberculosis retesting is sometimes carried out so that animals may satisfy the special requirements of various agencies: (1) In certain milk sheds, all cattle must be retested periodically if their milk is to continue being labeled "Grade A"; (2) Certain owners of purebred herds have a retest done annually to maintain an "accredited herd" status; (3) Selected animals are tested to meet requirements for fairs and cattle shows, or for shipment to other states or foreign countries; (4) All known infected herds are retested until entirely negative on repeated tests; and (5) Epidemiologic investigations are made whenever tuberculosis is found on veterinary postmortem inspection during routine packinghouse slaughter. The diseased animal is traced back to the point of origin, and all of the contacts of the infected animal are tested. The procedure of testing contacts is especially productive. It locates foci of infection promptly, and eradication of these centers helps to prevent the disease from spreading to clean herds as a result of routine cattle traffic.

In the early stages of the program in Iowa, 110 of every 1,000 cattle tested were positive reactors, but last year 373,783 Iowa cattle were tested and the positive reactors numbered only 1.8 animals per 1,000. Because of this decrease, there has been a marked falling off in the amount of human tuberculosis due to the bovine strain of the tuberculosis organism. Human cases of this type now rarely occur. Nevertheless, the job of eradication of bovine tuberculosis has not been completed. Retesting must be continued in order to locate the remaining infected animals and to prevent the disease from again becoming a serious menace. This is no time for complacency!

MORBIDITY REPORT FOR MONTH OF JUNE

Disease	*1958 June*	*1958 May*	*1957 June*	*Most Cases Reported From These Counties*
Diphtheria	0	7	0	
Scarlet fever	88	247	55	Cerro Gordo, Johnson, Polk
Typhoid fever	1	0	1	Cerro Gordo
Smallpox	0	0	0	
Measles	2032	4599	2211	Des Moines, Dubuque, Polk, Pottawattamie, Scott,
Whooping cough	7	4	19	Johnson, Plymouth
Brucellosis	10	11	7	Dubuque
Chickenpox	304	594	261	Dubuque, Polk, Scott
Meningococcus meningitis	1	0	0	Polk
Mumps	604	863	481	Clay, Dubuque, Polk, Pottawattamie
Poliomyelitis	4	2	5	Bremer, Clay, Des Moines, Mills
Infectious hepatitis	6	15	17	Union, Polk
Rabies in animals	27	24	32	Des Moines, Iowa, Story
Malaria	0	0	0	
Psittacosis	1	1	0	Wapello
Q fever	0	1	0	
Tuberculosis	33	68	38	For the state
Syphilis	101	128	150	For the state
Gonorrhea	50	108	57	For the state
Histoplasmosis	3	1	1	Story
Food intoxication	0	0	0	
Meningitis (type unspec.)	0	1	2	
Diphtheria carrier	1	8	0	Woodbury
Aseptic meningitis	0	0	0	
Salmonellosis	4	9	8	Linn, Marshall, Story, Washington
Tetanus	0	0	0	
Chancroid	0	0	0	
Encephalitis (type unspec.)	0	1	0	
H. influenzal meningitis	0	0	0	
Amebiasis	2	16	0	Davis, Union
Shigellosis	1	2	0	Polk
Influenza	14	20	200	Clay

Woman's Auxiliary News

OUR PRESIDENT SAYS—

The Thirty-fifth Annual Convention of the Woman's Auxiliary to the American Medical Association was held in San Francisco June 23-27, and it was my privilege to be one of the Iowa representatives present. It would be impossible for me to give a complete account of all the activities that took place there, but I should like to comment briefly on the business sessions and social functions which crowded those five days.

Registration opened at noon on Sunday, June 22, and continued through Thursday noon at the Fairmont Hotel. A hospitality room was maintained during the registration hours, and the doctors' wives from California were very gracious hostesses. Renewing old friendships and making new ones are some of the principal pleasures one derives from attendance at a national convention. Doctors' wives have a great deal in common, and a feeling of "togetherness" permeated the whole meeting.

Monday morning and Wednesday afternoon were devoted to roundtable discussions of Auxiliary work at the county level in our home communities. These sessions were conducted by the national officers and committee chairmen, and all members and guests were invited to attend. The Monday afternoon panel answered questions about finance, history, reports, parliamentary procedures and revisions.

The first social event of the convention was a tea and fashion show at the Mark Hopkins Hotel on Monday afternoon. This very lovely party was in honor of Mrs. Paul Craig, the president, and Mrs. E. Arthur Underwood, the president-elect. Nearly 900 doctors' wives attended.

The formal business sessions of the convention opened on Tuesday morning at 9:30, with the roll call of delegates. Reports of the national officers and committee chairmen were heard, and the budget for the next fiscal year was approved. State presidents gave project presentations. A complete revision of the constitution and by-laws was voted upon, and the nominating committee for 1959 was elected. The election of officers took place at the final business meeting.

A luncheon on Tuesday at the Fairmont Hotel was in honor of the past presidents of the national Auxiliary. The guest speaker was Mr. Richard H. McFeely, principal of George School, Bucks County, Pennsylvania.

A luncheon on Wednesday at the Mark Hopkins honored the president and president-elect of the National Auxiliary. Dr. David B. Allman, immediate past-president of the AMA was guest speaker, and Dr. Gunnar Gundersen, the newly installed AMA president also spoke briefly. On that occasion it was my pleasure to have as guests of the National Auxiliary, Dr. Walter D. Abbott, president of the Iowa State Medical Society, Mrs. Abbott, and Mr. Donald L. Taylor, the ISMS executive director.

On Friday morning, a 1958-1959 planning meeting for national officers and committee chairmen, and for state presidents and presidents-elect was conducted by Mrs. Underwood.

A national convention helps one obtain a broader view of the sum total of our Auxiliary activity than can be had anywhere else. It is my hope that all those who attended the meetings came away with a warm feeling of satisfaction as a result of their participation in the work of a great organization.

It is also my hope that I shall be able to convey to Auxiliary members and indeed to all doctors' wives in Iowa my own renewed enthusiasm for our Iowa state program.

Excerpts from speeches and summaries of discussions presented during the convention will be published in the BULLETIN, and other information from the national meeting will be sent to state committee chairmen. Please read them carefully, to learn about the various projects that our organization has started, and about the accomplishments for which it can take credit.

MRS. HERBERT C. MERILLAT
President

IOWA'S REPORT AT THE NATIONAL CONVENTION

The president of each state Auxiliary had been asked to report at the national convention in San Francisco only upon the one project of her organization that she felt had been most successful during the past year. Following is a brief résumé of the report made by Mrs. J. F. Gerken, of Waterloo, immediate past-president of the Iowa Auxiliary.

"We in Iowa think that one of our most interesting projects has been the introduction of the series of letters entitled 'Milestones to Marriage' to teen-agers through the schools of our state.

The Mental Health Committee of the Iowa State Medical Society had recommended it to us as particularly effective subject matter with which to start youngsters thinking about some problems which all of them are about to face.

"To introduce 'Milestones to Marriage' in the schools of various areas of our state, 10 members of our state Auxiliary's Board of Directors volunteered to seek clearance from county medical societies and to start pilot studies. The principal or superintendent of each school or school system was then approached, and was asked to secure the cooperation of his teachers in using the letters.

"When the pilot programs had proved highly successful, we arranged to have the material used in even more schools, and a check-up has shown that 32 communities are now using the letters under the sponsorship of county Auxiliaries or, in many instances, at the behest of our members-at-large. In a few additional places, the schools are using them because of the recommendation of a physician who learned of the letters through reading the issues of our WOMAN'S AUXILIARY NEWS. Besides promoting the use of the letters in our schools, we have given some copies to clergymen for their use in their individual counseling work.

"Though we have already distributed several hundred copies of 'Milestones to Marriage,' we are planning to purchase another thousand copies and to continue the project during the coming school year."

1958-1959 ESSAY CONTEST

The Iowa State Medical Society and its Woman's Auxiliary are indeed proud to have had two winners in the National AAPS Essay Contest for 1957-1958. Norman Oberstein, of Oskaloosa, the top contestant in the state contest, won ninth prize at the national level and received a prize of $75. Joy Cassill, of Ottumwa, who placed second in Iowa, ranked sixteenth in the national competition and received an honorable mention. All three of our state-contest winners wrote on "The Advantages of Private Medical Care."

The tpoics for the 1958-1959 contest will be the same as those for the one which just closed, and the ISMS has again asked the Auxiliary to promote it. County societies and members-at-large are urged to see local school officials early this fall, so as to be sure of having the contest included in the instructional programs of as many systems as possible.

SAFETY FIRST

"Better arrive late—than never!"

MEDICINE'S BEST ALLY, THE WOMAN'S AUXILIARY

(The following is a portion of Mrs. Merillat's address to the senior medical students and their wives and fiancées in Iowa City on May 17, 1958.)

In 1931, the Woman's Auxiliary received its first request for assistance from the House of Delegates of the AMA. It was asked to recognize as one of its chief responsibilities the distribution of HYGEIA, a publication which now is known as TODAY'S HEALTH. Ever since then, our organization has urged lay people to read and use this magazine, and we have concentrated our efforts upon parent-teacher associations, boards of education and similar bodies interested in education. TODAY'S HEALTH contains authentic medical information couched in non-technical phraseology, and it is thus invaluable as a source of material for teaching purposes and program planning. Self-education and instruction for others have been among the prime objectives of our organization since its inception.

Another AMA project, the American Medical Education Foundation which was established in 1950 to assist in financing medical schools, constituted a challenge to the Auxiliary, and has now become one of its chief responsibilities. Our county chapters make group contributions to this cause, and in addition they encourage individual ones.

The shortage of nurses has long been a deep concern of the medical profession, and the Auxiliary has been actively engaged in a nurse-recruitment program for a number of years. As a part of this effort, our organization sponsors Future Nurses Clubs in many high schools. We have definite proof that many young women are led to enter nurses' training because of the activities in which they have participated as members of these high-school groups. In addition, some county Auxiliaries make scholarships available to nurse trainees, and the State Auxiliary supports a loan fund for nursing students. This fund is maintained through an assessment of 50c per Auxiliary member and by various fund-raising projects. At the time of the annual meeting of the ISMS, the Auxiliary sponsors a dance for the benefit of its loan fund and the AMEF, and the dance has become both a major social event and a successful financial venture.

Whenever and wherever a Woman's Auxiliary has been given the direction and the opportunity to serve the medical profession and the community, there have been visible and indeed impressive results. The Auxiliary has actively engaged in promoting a home and traffic safety program. It has urged the establishment of driver-training programs in all high schools, and the equipping of automobiles with safety devices. It has made homemakers more conscious of the need of preventing home accidents, and it has advocated the

establishment of speed limits and the strict enforcement of traffic laws.

Civil defense is a prime concern of our organization. If a doctor's home and family are not prepared for a disaster—a tornado, flood or fire, as well as an invasion—who else in the community will feel that preparation is necessary?

A doctor's wife—or an Auxiliary which is made up of doctors' wives—has a wonderful opportunity to practice the improving of public relations. As individuals, we are members of various community organizations and have frequent chances to mold the attitude of the lay public toward the medical profession. It has been my experience that a doctor's wife is always appointed to the health committee in any organization of which she is a member. Then, if she has any talents of her own, she does double duty. It is all very well to have a large-scale, planned program of public relations, and I am heartily in favor of the fine work that is being done, but the good impression we wives make in our daily personal contacts with our neighbors, our shop keepers and our schools influence our community's attitude toward our husbands' profession.

At local, state and national levels, under the direct guidance of medical societies, the Woman's Auxiliary has provided competent and enthusiastic assistance on legislation, public relations, and fund raising. Today, the members of the Woman's Auxiliary to the AMA number more than 75,000, and the organization has had a steady growth over the years because its members have been given jobs to do. The Iowa Auxiliary, organized in 1929, now has more than 1,000 members. There are no more satisfying, challenging and stimulating outlets for the energies of a doctor's wife than those which are provided her by the Auxiliary, for it enables her to serve her husband and his profession.

Young doctors, urge your wives to become Auxiliary members! And when you have done that, please don't feel that you have discharged your whole responsibility toward our organization. Auxiliary members want to work efficiently. We want to understand and to be well informed, for we know that we can be helpful only if we first achieve a thorough understanding of the work with which we are asked to help. Thus, we want you to keep us abreast of all developments in the fields where you have asked us to work.

If you give the Auxiliary an opportunity to serve, and if you give it your full support, you will quickly learn its power. In fact, you will find it your most valuable ally.

FUTURE NURSES CLUB ACTIVITIES

Sixteen Reinbeck High School girls interested in health careers qualified for FNC pins this past year. The emblems were presented to them at a special meeting in the spring, through the courtesy of the four Reinbeck physicians.

In addition to a series of programs and tours, including a trip to the FNC convention in Waterloo and a trip to the University and Mercy Hospitals in Iowa City, the Reinbeck club assisted in several community health projects. The girls helped with sight and hearing test programs in the schools, collected toys for the Christmas observance at University Hospitals, and were in charge of the 1958 Heart Fund drive in their community.

CHIT CHAT

Postcards from **Dr. and Mrs. J. F. Gerken** indicated they thought Hawaii an out-of-this-world vacation spot. They recommend your saving money to make that fascinating trip.

* * *

Dr. and Mrs. N. W. Irving, Jr., and their family drove to Washington, D. C., and report having had a delightful trip through the historic and scenic East.

* * *

Dr. and Mrs. E. A. Vorisek went from Des Moines to San Francisco for the AMA meeting by way of the Canadian Rockies and the Pacific Northwest. They spent a weekend in Forest Grove, Oregon, at the home of **Dr. George A. May**, a former associate of Dr. Vorisek.

* * *

Dr. and Mrs. R. F. Nielsen and their family visited the Pacific Northwest on their return trip from the San Francisco meeting, as did several other physicians and their families.

* * *

In addition to Mrs. Merillat, Mrs. Gerken, Mrs. Nielsen and Mrs. Abbott, all of whom have been mentioned elsewhere in these pages as having attended the national convention in San Francisco, the following delegates and alternates from the Iowa Auxiliary were present: **Mrs. W. B. Chase, Jr.**, Des Moines, **Mrs. R. T. Paige**, LaPorte City, **Mrs. R. N. Larimer**, Sioux City, **Mrs. D. F. Ward**, Dubuque, **Mrs. R. V. Corton**, Waterloo, and **Mrs. J. A. McFarlane**, Sioux City.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 2800 Woodland Avenue, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 907-49th St., Des Moines
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A General Practitioner Evaluates the Problem of

Treating the Whole Patient

CRAIG D. ELLYSON, M.D.

WATERLOO

JAN CHRISTIAAN SMUTS, the South African statesman who was instrumental in settling many disputes between nations, diagnosed the general illness of our times as "fragmentation," and declared that the cure for it can be nothing other than "wholeness."

Physicians, no less than diplomats, must grant the accuracy of that statement, for each human being—like the human race and the world it inhabits—cannot satisfactorily be divided into parts for separate treatment.

As physicians, we must learn to treat each patient as a whole—not as a fractional man, but as a person with a body that senses pain, a mind that wrestles with fear and anxiety, and a soul that will never be completely cured until it has been made one again with God.

It is a grave mistake to treat the body and the mind, however wisely, while neglecting the person himself. It is our job to help the patient die in peace if he cannot get well, but if he can survive, to send him home to his family and work able to resume his place in the community and ready to attest to what *both* science and his faith have done to make him whole again. Anything short of this does not constitute healing in the highest sense of the word.

Too frequently, in this age of specialization, the patient is handed from one physician to another like a football. He is looked upon as a fascinating collection of symptoms or as a case number, rather than as an individual whose life will continue after he leaves the hospital and who must return to the old pressures and stresses of living, be they financial, emotional, social or spiritual.

The pressure or stress syndrome is one of many interesting concepts that have evolved during the past decade. Fortunes and reputations have been won by authors who have given the reader superficial patterns for living and thinking in books and articles on "Do-it-yourself Psychiatry" and "Do-it-yourself Religion." Too often, people commit these pseudo-philosophies to memory without having examined them thoughtfully, and then they glibly quote the precepts and attempt to act upon them. Instead of maturing with age, such people have acquired merely a brittle veneer which cannot withstand the buffeting of adverse fortune.

As students in medical school, all of us were impressed by the specificity of illnesses. A certain bacterium produced a specific disease, and that disease, in turn, was cured by a drug of choice. Of course that is still true. But now we also recognize additional non-specific symptoms which accompany many varieties of illnesses and which may be present without an underlying organic disease. These make up a syndrome which is brought into being by stress, strain and pressure, and which we have given a variety of ear-catching labels such as "emotionally-induced illness" and "anxiety state," all denoting the same thing. To cope with these emotionally-based illnesses, an excellent healing team composed of clergymen, physicians and hospital personnel has developed.

All of us have had patients whose fathers and mothers had swept clean paths before them so that nothing should mar the serentity of their existence. After the parents died, or after the patient married, the first crisis of any sort produced acute anxiety in the patient because he had not been conditioned for adversity. Stress results from an inability to adjust to problems, from over-reaching one's capabilities or from seeking security at the cost of individuality—from being unable to tell-off The Boss, for example. Thus one's job, one's marriage and even existence itself loses its lustre.

The preceding statements summarize the philosophies of several professional men who have worked toward coordinating the efforts of physicians and clergymen. They have concluded that by helping patients attain maturity, men of medicine and men of God avoid "fragmentation" and substitute "wholeness" for it.

THE BEGINNINGS OF PHYSICIAN-CLERGYMAN COOPERATION

This "wholeness" in the practice of medicine was first sought in this country at the turn of the century. Under the medical direction of Dr. Joseph H. Pratt, the Emmanuel Church Tuberculosis Class was established in Boston. The patients who composed that class lived in the slums, and they were allowed to remain at home, but were assured adequate medical care *plus* friendship, encouragement, hope and discipline—a combination of physical, mental and moral elements. The results of this treatment compared favorably with the therapy provided in the best sanatoria of that era. Because of the success of that experiment, a class was estab-

This paper reproduces part of an address which Dr. Ellyson delivered during the Annual Reunion at the S.U.I. College of Medicine on June 14, 1958.

lished for the treatment of patients with nervous disorders—again under medical supervision—and it became the first efficient mental health clinic.

In the 1920's the Reverend Anton Boisen became mentally ill and was admitted to the Worcester, Massachusetts, State Hospital. He asked to see a minister or chaplain. None was available. Later, a minister did visit the hospital, but the attitude of revulsion that he exhibited all too clearly prevented him from giving the patients the help they needed. In 1924, when Mr. Boisen was about to be discharged from the hospital, he asked to remain there as chaplain. He believed that the mental hospital could serve as a center for the clinical training of theological students, and that after they had associated with abnormal people there, they would have a better understanding of the normal person. Many of us remember Dr. George Boody, at the Independence State Hospital here in Iowa. He had the same philosophy, and always opened his first day's talk to externes by saying, "Here is your classification of mental illnesses. Learn it well, for each so-called normal individual, if he comes under sufficient physical or emotional strain, will break mentally and develop his own type of psychosis."

Ten years later, Dr. Richard C. Cabot sensed the urgent need for pastoral guidance in the Massachusetts General Hospital, in Boston. At his own expense, he hired a young minister just out of seminary, the Reverend Russell L. Dicks, who quickly proved his worth and stayed at Massachusetts General for three years. Out of that experiment came the book by Cabot and Dicks entitled THE ART OF MINISTERING TO THE SICK, which is still required reading in most seminaries.

MEDICAL AND DIVINITY SCHOOLS ARE JOINING FORCES

About 20 years later, the Reverend Granger E. Westberg started training ministers to coordinate their efforts more effectively with those of physicians. After preliminary work at Augustana Hospital, in Chicago, he was placed in charge of clinical pastoral care at the University of Chicago School of Medicine, and now is an associate professor of religion and health at that institution. Under his direction, there is an interflow of medical and theology students between the seminary and the medical clinics. Embryonic professional men consider the complex problems of impending death, and of the permanent crippling of body and mind. They learn by association with mature physicians and clergymen. Playbacks of taped interviews between students and patients pinpoint the personal shortcomings of the students.

Anyone whose warped outlook on life is undermining the state of his health or is hindering his recovery from a physical disease can be helped by members of both professions. If an alert minister notes that the patient has a faulty family situation, he can promptly call the matter to the family physician's attention. The present need for such cooperation is evidence of the physician's failure to fulfill a part of his obligation in treating the patient. Were he perfect in the performance of his task, he would be cognizant of these complex factors without needing to rely on outside help for guidance.

The idea of "healing team conferences" on religion and medicine has now caught the fancy of clergymen and medical practitioners alike. Last fall, Wartburg College and the Rohlf Memorial Clinic Foundation, in Waverly, Iowa, sponsored a two-day meeting, at which the speakers included the Reverend Mr. Dicks, now at Duke University, and Drs. W. B. Bean and R. T. Tidrick, from the S.U.I. College of Medicine, among others. Later, the State University of Iowa sponsored a forum that brought together hospital administrators, physicians and clergymen. Dr. Tidrick and the Reverend Mr. Westberg appeared before that group. The ISMS Health Education Committee, of which I am a member, considers religion and health so important a topic that it is making sure that each series of its "Medical Diary" TV programs contains at least one film dealing with it.

PHYSICIANS MUST SET EXAMPLES OF RIGHT LIVING

If we are to be able to lead our patients into a healthful way of life, we physicians must practice what we preach. We must set an example by being mature, well-integrated citizens. How ironic it is that while excusing ourselves from participating in civic activities and giving them our moral and financial support, we drive some of the sleekest cars in town and brag about deducting the expenses of trips to medical meetings from our taxable incomes. How dishonest it is for us to counsel our patients against running away from physical and mental health problems when we ourselves do the same!

The really profound books on this subject are altogether correct in proposing a philosophy characterized by such things as "independence, not dependence; . . . giving, not always taking; cooperation, not opposition; gentleness, not austerity; factual living, not childlike fantasy; and above all, tolerance in thoughts and actions."

Another author, the Reverend Mr. Dicks, has expressed himself as follows: "There are opposing emotions, one healing, the other destructive." Here is his list:

Rejection	as opposed to	Acceptance
Pain without courage	" "	" Pain with courage
Anxiety	" "	" Faith
Hostility	" "	" Calmness with hope
Guilt	" "	" Forgiveness without reservation
Boredom	" "	" Creative work
Despair	" "	" Joy
Loneliness	" "	" Love

Still another author, Dr. John Schindler, has suggested the following criteria for a fully-satisfying life:

(1) Something creative in one's life
(2) Recognition of one's worth by others
(3) Looking forward to some new experience
(4) Self-esteem
(5) Loving and being loved
(6) Security now and in the future
(7) Faith that even if none of these things are possible, there still exists an overall power to assure one's being able to make the best of it.

Dr. William Gordon suggests that we have two kinds of stress—"pitiable," with no relief in sight, and "laudable," which permits growth of character and maturation of spirit through the surmounting of obstacles.

Certainly no one would want men and women of either profession to appear before patients as grinning Pollyannas, prating platitudes and insincere sympathies in times of need. Only when each member of the healing team has himself achieved mature character can he help others to meet their problems with equanimity, resignation, courage, determination, cheerfulness and pleasantness.

BIBLIOGRAPHY

1. Anderson, Harrison Ray, D. D.: On Being Made Whole (Address at meeting of American Protestant Hospital Association. Palmer House, Chicago, February 28, 1957).
2. Dicks, Russell L., D.D.: The Healing Power of Mind and Body (Address before Conference on Religion and Medicine, Wartburg College, Waverly, Iowa, August 28-29, 1957).
3. Gordon, William H., M.D.: Stress and Strain in Everyday Living (Address before The Knife and Fork Club, Waterloo, Iowa, April 24, 1958).
4. Schindler, John, M.D.: How to Live 365 Days a Year. New York, Prentice-Hall, Inc., 1954.
5. Westberg, Rev. G. E.: Advice to family on being given diagnosis of cancer. M. Clin. North America, 42:563-568, (Mar.) 1958.
6. Westberg, Rev. G. E.: "New" field of religion and medicine. Postgrad. M., 23:668-671, (June) 1958.
7. Worcester, Elwood, McComb, Samuel, and Coriat, I. H.: Religion and Medicine. New York, Moffat Yard and Co., 1908.

You Can Enjoy Managing Your Practice

MILLARD K. MILLS

WATERLOO

MANY PHYSICIANS are convinced that they don't enjoy the business side of medicine, and they try to ignore all that it entails. But if the truth were known, most such men have experienced only the muddles, the embarrassments, the losses and the worries that are the consequences of office inefficiencies. They'd enjoy the prosperity and peace of mind which a really well-managed office brings, if they only knew how to set up and operate the requisite system.

Every doctor's objectives can be phrased somewhat as follows: (1) to render the best possible service to his patients; (2) to practice easily and efficiently; and (3) to achieve enough financial success so that he can provide adequately for his family.

Some doctors think that a medical practice can be left to run itself. That is true, but it will run itself very expensively—in terms of money and of time and worry as well. Time that one refuses to spend in planning and arranging will eventually be required—with a stiff penalty added—in clearing up messes of various sorts. For example, if one fails to take time for proper interviews and as a result hires a poor medical assistant, he is sure to encounter untold grief, and lost hours and money. Similarly, if one fails to establish a sound written fee schedule for himself, both his office staff and his patients will be confused and he will lose money.

Mr. Mills is general manager of Professional Management Midwest.

There are still some men who fear being considered commercial-minded and who adopt the philosophy that prevailed 25 years ago—the idea that it is beneath a physician's dignity to think of dollars and cents. Such an attitude may have been admirable in a day when almost the only tools a doctor had to aid him were those he carried into his patients' homes in his little black bag, but it is no longer justified. The providing of good service to patients now requires large expenditures, for capable assistants, modern equipment, and a pleasant, well-furnished office. In addition, patients find reassurance in the obvious efficiency of their doctors' business procedures. The excellent public relations manual of the AMA puts it this way: "Poor business practices are often at the bottom of the patients' complaints about medical care and medical men. Efficiency in the business side of the practice is to the best interest of both patients and doctor."

I challenge every one of you to improve your understanding of the business side of your practice, for I know you will find it interesting. Doing so won't take a lot of your time. Ultimately, in fact, it will save time.

Where do you start? You start by gathering information essential to a proper evaluation of your practice. Comparison is the only possible means for evaluating anything. A steak is excellent, good or poor only in comparison with other steaks that you have eaten. When you taste a particular food for the first time, you can decide whether or not

you like it, but you cannot determine whether it is a good specimen of its particular kind of food until you have compared it with several other servings of the same delicacy. Perhaps you're satisfied with your first taste, but you may never know how good it can be unless you sample other cooks' handiwork. Similarly, you must compare essential facts in order to know how well or poorly you are doing in the management of your medical practice.

There are two means of comparison, and both are important. First, you can compare your practice with those of other physicians. You can find reliable and detailed standards in the magazine MEDICAL ECONOMICS. Many other journals today have articles on the business side of medicine: your state journal, GP and J.A.M.A. You should not lack information. Second, you can compare results in your own practice, from quarter to quarter or from year to year. In some ways, this second type of comparison is more useful. You need to spot undesirable trends in your practice before they become serious. If you are to make intelligent decisions, you need to know what is happening. The more you know about your practice, the more you will enjoy it.

YOUR WORK LOAD

Dollar volume. The average generalist grosses about $3,500 per month, and the average specialist from $3,500 to $4,500. What do these figures mean to you? Dollar-volume is your best yardstick for determining what it will cost you to bring in an associate. In addition, comparisons between periods will show important trends in your practice.

Type of work done. You will find it interesting and useful to know the "balance" of your practice. If you are a generalist, you need to know how many complete physicals you are doing, how many obstetric patients you are serving, how much of your work is major surgery, and so forth, in order to decide whether or not your investments in equipment are justified.

For example, how much are you using your laboratory, x-ray and other auxiliary services? Assume that you have invested $5,000 in a 100 m.a. unit that you begin to suspect you are using only infrequently. The x-ray unit takes up 120 sq. ft. in a crowded office. The proper data will help you determine whether or not you can put that space to better use and convert your $5,000 investment into a better one.

Here is another example. You may be one of the many doctors who are experiencing a drop in volume this year. It is natural to wonder why. Are you responsible, or is the decline a result of some factor that is beyond your control? Doctors generally are seeing more new patients than they did last year, but in 1957 a great deal of influenza and the administration of polio vaccine inflated the volume. Yet, before you console yourself with the thought that you are no different from the typical practitioner, you should examine your own records for this year and last.

How many new patients are you getting each month? If your practice is static, something is wrong. If you are a specialist, how many patients are being referred to you by other patients, and how many by doctors?

YOUR COLLECTIONS

Collection percentage. Do you know what your collection percentage is? You should. That figure can tell you at a glance the efficiency of your credit and collection program. It is determined by dividing total cash receipts by total business done. The average for offices that use good credit and collection procedures is 95 per cent, and the national average is between 85 and 88 per cent. Knowledge of your collection percentage is important because it may warn you that something is wrong in your office. A slipping collection percentage may mean that your assistant is failing to send out statements or is neglecting to interview delinquent patients. It may be the result of changing economy, or it may indicate embezzlement.

How much is owed to you? If a low collection percentage does not spur you to improve your credit and collection practices, the fact that your outstanding accounts total between $23,000 and $25,000 may do so. Once you have established the amount at the end of a month it is easy to keep a running total of your accounts. Your assistant should run a tape every quarter or so, in order to determine the accuracy and efficiency of her work, and she should show the results to you.

Research has proved that the average doctor has about four months of business on his books. In other words, if his average volume is $3,500, his accounts receivable at any given time total about $14,000. If you run much in excess of that amount, you have a weakness in the management of your practice that should be corrected.

Who owes you? Analysis usually shows that a small number of patients owe the bulk of the money that is due you. A listing of those who owe you more than $100 will tell you where the greatest collection effort should be made.

You will find that an amazing number of patients owe you $5.00 or less, each. A proper use of the charge-slip system would have prevented such items from going onto the books. Collecting such minor amounts at the time the patients receive service saves mailing out statements.

YOUR BUSINESS EXPENSES

Many doctors work very hard, only to find that their income is consumed by high expenses. The overhead percentage is determined by dividing business expense by cash receipts. In the Midwest, overhead runs between 36 and 44 per cent, with the average being 40 per cent.

To know what is happening to your practice, you need to get this figure for each month and for the year-to-date. It is well to go a step further. How much of your cash receipts goes into rent,

dues, journals, etc.? This information, percentage-wise, helps you to make decisions. Can you afford more space? If your rent is more than from 3 to 5 per cent of your cash receipts, you are already above average.

YOUR LAYOUT

There is no substitute for a well-designed and pleasant office. MEDICAL ECONOMICS and other journals have printed examples of good layouts. You need a minimum of three examination-treatment rooms, a private business office for your secretary, and a comfortable, air-conditioned outer-office for your patients and the rest of your staff. It is seldom practical—indeed it is very inefficient—to "make-do" with inadequate space and an uncomfortable office. Some superior medical buildings have been constructed during the past three years. Compare your facilities with those of your friends, and see whether you are satisfied.

YOUR PERSONNEL

Consider these questions: (1) Do you have the best possible assistants? (2) Are your assistants accepting all of the responsibilities of which they are capable? (3) Do you have clear-cut personnel policies on sick leave, vacations, dismissal pay, etc.? (4) Is your salary scale in line with the work your assistants do?

GENERAL OFFICE PRACTICES

The appointment system makes for efficiency, and more and more generalists are adopting it. Patients receive better service, your assistants work more efficiently, and you can control your own working hours when you make and keep appointments.

Do you inform your patients of your charges before they leave your office? Do you always explain fees that exceed the standard charge for an office call? You can save time and trouble by doing these things.

Are you dispensing medications at a loss? The dangers of obsolescence of expensive preparations and of uncollectable accounts make this facet of medical practice into something that deserves constant attention.

How long is it since you last reviewed your business insurance policies? Here are some important questions: (1) Is your insurance against fire and other disasters sufficient to cover today's cost of replacement? Do you carry the co-insurance clause providing either 80 or 90 per cent on your building and equipment? (2) Is your professional liability coverage up-to-date? Many advisors recommend a minimum of $50/150,000 for generalists and $100/300,000 for specialists. (3) Are you aware that automobile liability insurance should now protect you against claims of $100/300,000 for personal injury and $50,000 of property damage? The $100 deductible provision will cut down your premiums.

YOUR NET GAIN

How does your net gain compare with those of other doctors? In the final analysis, the important figure is the amount you have left over at the end of the year for debt-liquidation and for savings. That is called your net gain.

The average doctor who does a good job of managing his practice and his financial affairs saves about 25 per cent of his earnings. Some doctors save nothing. The latter are making no progress and are adding nothing to their worth.

If you are to achieve your objectives, you must devote some time to the business side of your practice. But you won't necessarily find such work painful or even boring. There is satisfaction in the orderliness that results from the correct performance of any task, and when that orderliness is augmented by increased bank desposits, few men can find reasons to object.

Again, I challenge every one of you to make an effort at learning more about these aspects of your work. You will be amazed at how interesting and how profitable they can be.

Omaha Mid-West Clinical Society

The Omaha Mid-West Clinical Society will present its twenty-sixth annual scientific sessions on November 3-6, at the Sheraton-Fontanelle Hotel, in Omaha, with the University of Nebraska and Creighton University medical schools as joint sponsors. AAGP members will be entitled to Category I credit for attending it.

The panel discussions will cover the following topics: staphylococcus infections, obstetrical shock, common fractures and "This . . . Is What's New." The guest speakers will include Leon Israel, M.D., professor of gynecology and obstetrics at the University of Pennsylvania Graduate School; Louis T. Byars, M.D., professor of clinical surgery at the Washington University School of Medicine, St. Louis; Benjamin M. Gasul, M.D., director of pediatric cardiophysiology at Cook County Hospital, Chicago; Earl D. Osborne, M.D., professor of dermatology and syphilology at the University of Buffalo; Edward M. Litin, M.D., consultant in psychiatry at the Mayo Clinic; Julian E. Jacobs, M.D., a lecturer in orthopedics at Duke University; Victor Goodhill, M.D., clinical professor of otology at U.S.C.; Thomas McGavack, M.D., lecturer in medicine at George Washington University; W. Edward Chamberlain, M.D., professor emeritus of radiology at Temple University; Myron Prinzmetal, M.D., professor of clinical medicine at U.C.L.A.; and Campbell M. Gardner, assistant professor of surgery at McGill University.

Coming Meetings

In State

Sept. 21-23	**Annual Meeting, Iowa Academy of General Practice.** Savery Hotel, Des Moines
Oct. 3	**Conference on Children and Youth.** State Teachers College, Cedar Falls

Out of State

Sept. 1-6	**International Congress of Biochemistry.** Vienna, Austria
Sept. 1-7	**International Congress of Psychotherapy.** Barcelona, Spain
Sept. 2-4	**European Congress of Allergy.** London, England
Sept. 3-5	**Eighty-fourth Annual Session, Oregon State Medical Society.** Masonic Temple, Portland
Sept. 4-6	**American Association of Obstetricians & Gynecologists.** The Homestead, Hot Springs, Virginia
Sept. 4-9	**Pediatrics.** U. of Colorado School of Medicine, Denver
Sept. 5-6	**Minor Surgery, Lecture & Laboratory.** U.C.L.A., Los Angeles
Sept. 5-13	**International Congress of Tropical Medicine & Malaria.** Lisbon, Portugal
Sept. 7-11	**Fifth International Congress on Diseases of the Chest** (American College of Chest Physicians). Tokyo, Japan
Sept. 7-11	**International College of Surgeons, United States Section.** Atlantic City
Sept. 7-13	**International Society of Hematology & International Society of Blood Transfusions.** Rome, Italy
Sept. 8-12	**Comprehensive Review in Dermatologic Histopathology.** N.Y.U., N.Y.C.
Sept. 8-12	**International Congress of Ophthalmology.** Brussels, Belgium
Sept. 8-13	**Regional Anesthesiology.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 8-15	**International Association for Prevention of Blindness.** Brussels, Belgium
Sept. 8-19	**Office and Operative Gynecology.** Cook County Graduate School of Medicine, Chicago
Sept. 8-20	**Recent Advances in Surgery.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 9-12	**Collegium International Neuro-Psychopharmacologicum.** Rome, Italy
Sept. 9-12	**Utah State Medical Association.** Hotel Utah, Salt Lake City
Sept. 10	**Advances in Diabetes Mellitus.** U. of Oklahoma Medical Center, Oklahoma City
Sept. 10	**International College of Surgeons, Montana Surgical Section Meeting.** Billings
Sept. 11-13	**Montana Medical Association.** Northern Hotel, Billings
Sept. 11-13	**Saint John's Hospital Postgraduate Assembly.** Santa Monica
Sept. 12-13	**Northeastern Section, American Urological Association.** Equinox House, Manchester, Vt.
Sept. 12-15	**International Society of Bronchoesophagology.** Kyoto, Japan
Sept. 13-14	**AMA Conference on Aging.** Drake Hotel, Chicago
Sept. 13-17	**Internal Medicine.** U. of California, San Francisco
Sept. 14-17	**Annual Convention, Washington State Medical Association.** Spokane
Sept. 14-21	**International Society of Cardiology.** Brussels, Belgium
Sept. 15-16	**Annual Assembly, Wisconsin Academy of General Practice.** Milwaukee Auditorium, Milwaukee
Sept. 15-26	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Sept. 15-26	**Normal and Pathological Physiology.** N.Y.U.—Bellevue Medical Center, N.Y.C.
Sept. 17-18	**Twelfth Annual Postgraduate Assembly.** San Diego County General Hospital, San Diego
Sept. 17-20	**Annual Meeting, Nevada State Medical Association.** Elko
Sept. 18	**Medical Terminology.** U.C.L.A., Los Angeles
Sept. 18	**Tri-State Medical Assembly.** Shreveport, Louisiana.
Sept. 18-20	**Tenth Annual Meeting, Pacific Dermatologic Association.** Hotel del Coronado, Coronado, California
Sept. 18-20	**Obstetrics & Gynecology.** U. of California, San Francisco
Sept. 19	**Second Annual Symposium on Infectious Diseases (AAGP, Kansas University Medical Center and Lederle Laboratories).** Battenfeld Auditorium, Kansas University Medical Center, Kansas City, Kansas
Sept. 19-22	**New Hampshire & Vermont Medical Societies.** Mt. Washington Hotel, Bretton Woods, New Hampshire
Sept. 22-24	**Texas Academy of General Practice.** San Antonio
Sept. 22-25	**Kansas City Southwest Clinical Society.** Municipal Auditorium, Kansas City, Missouri
Sept. 22-26	**Surgery of the Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Sept. 22-28	**International Congress of History of Medicine.** Montpellier, France
Sept. 22-Oct. 3	**Intensive Review of Internal Medicine (for Internists).** U. of Southern California, Los Angeles
Sept. 22-Oct. 3	**Diagnostic X-ray.** Cook County Graduate School of Medicine, Chicago
Sept. 22-Oct. 3	**General and Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Sept. 23-25	**Pediatrics for Pediatricians.** U. of Minnesota, Minneapolis.
Sept. 23-25	**Kentucky State Medical Association.** Brown Hotel, Louisville
Sept. 24-26	**Mississippi Valley Medical Society.** Morrison Hotel, Chicago
Sept. 24-27	**Annual Session, Colorado State Medical Society.** Broadmoor Hotel, Colorado Springs
Sept. 24-28	**International Congress of Angiology & Histopathology.** San Remo, Italy
Sept. 25-27	**American Academy for Cerebral Palsy.** Sheraton-Biltmore Hotel, Providence, Rhode Island
Sept. 25-28	**Third International Congress of Angiology.** Venice, Italy
Sept. 26-27	**Annual Meeting, New England Surgical Society.** Mt. Washington Hotel, Bretton Woods, New Hampshire
Sept. 26-27	**American Medical Writers' Association.** Hotel Morrison, Chicago
Sept. 27	**American College of Physicians, Mid-West Regional Meeting.** Milwaukee County Hospital, Milwaukee.
Sept. 27-Oct. 3	**Fifty-ninth Annual Meeting, American Roentgen Ray Society.** Shoreham Hotel, Washington, D. C.
Sept. 28-Oct. 2	**International Congress of Psychotherapy.** Barcelona, Spain
Sept. 29	**International College of Surgeons, Tennessee Surgical Section Meeting.** Chattanooga
Sept. 29	**Orthopedic Surgery & Fractures.** U. of Oklahoma School of Medicine, Oklahoma City
Sept. 29-30	**Tennessee Valley Medical Assembly.** Read House, Chattanooga
Sept. 29-Oct. 1	**Electrocardiography (U. of Nebraska College of Medicine and Nebraska Heart Association).** U. of Nebraska College of Medicine, Omaha
Sept. 29-Oct. 3	**American Board Review Course in Surgery.** Cook County Graduate School of Medicine, Chicago
Sept. 29-Oct. 10	**Clinical Use of Radioisotopes.** Cook County Graduate School of Medicine, Chicago
Sept. 29-Oct. 10	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Sept. 30-Oct. 2	**American Fracture Association Meeting.** Auditorium, U. of Oklahoma School of Medicine, Oklahoma City
Sept. 30-Oct. 3	**Michigan State Medical Society.** Sheraton-Cadillac Hotel, Detroit
Oct. 1-3	**Institute on Chronic Schizophrenia and Hospital Treatment Programs.** Osawatomie State Hospital, Osawatomie, Kansas

(Continued on page 532)

Scientific Articles

Head and Neck Cancer From the Standpoint of a Clinical Radiotherapist

RALPH M. CAULK, M.D.

WASHINGTON, D. C.

HEAD AND NECK cancer constitutes a large part of the material which is presented to radiotherapists for management. It has been my privilege not only to have had available a large amount of material in this field to treat personally, but also, by virtue of a long Tumor Board experience, to understand the philosophy and to observe the problems involved in the surgical approach to head-and-neck cancer.

At the outset, I want to say that aggressive radiotherapy or surgery in this area both leave much to be desired. Both approaches are time-consuming and laborious. Many times, even if a cure is obtained, the patient is never completely rehabilitated. The disfiguration, discomfort and complications that follow either the radiotherapeutic or the surgical approach are by no means trivial. The problem becomes magnified in ratio to the extent of the disease at the time the patient first presents himself for treatment.

For the purpose of this discussion, I shall consider cancer originating in the oral cavity, the pharynx, larynx and the nasal accessory sinuses. The prognosis from the standpoint of cure through any method of treatment depends largely upon the extent of the disease. The selection of cases for potential cure by *radiotherapy* depends not only upon the extent of the disease, but also upon the anatomic site of origin of the cancer.

In the oral cavity, we recognize the following sites of origin:

1. Buccal mucosa
2. Gingival mucosa
3. Floor of the mouth
4. Soft palate
5. Tongue (mobile portion).

LESIONS OF THE BUCCAL AND GINGIVAL MUCOSA

I consider cancer originating on the buccal mucosa as a lesion that can be properly treated and controlled by means of radiotherapy, provided that the disease does not involve the gingiva, either upper or lower. Even if the disease covers a rather large area, and as a matter of fact invades fairly deeply into the cheek, experience has shown that buccal mucosal cancers are curable by this means. Fortunately, the cheek has an excellent blood supply and will tolerate high-volume doses of radiation. From a biologic standpoint, buccal mucosal cancer also is rather late in developing metastases, and for that reason radiotherapy is an excellent method of treatment. However, when buccal mucosal cancer has involved the gingiva, the chances of failure by radiotherapy become quite high.

In contrast, cancer involving the gingival mucosa, either primarily or secondarily, offers an exceedingly poor prognosis for cure by means of radiotherapy. The gingival mucosa lies in close proximity to bone, and as a consequence will not tolerate cancericidal doses of radiation readily, with satisfactory healing.

LESIONS OF THE FLOOR OF THE MOUTH

Cancer of the floor of the mouth is often quite readily accessible to treatment by radiation therapy because it is often confined to the anterior one-third. A rather high index of suspicion on the part of dentists and oral surgeons has led to the early diagnosis of many of these lesions in the

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He delivered this paper as the Erskine Memorial Lecture at the 1958 Annual Meeting of the Iowa State Medical Society.

floor of the mouth. Like the buccal mucosa, the floor of the mouth has an excellent blood supply and will tolerate high doses of radiation. Again, the possibility of cure in cancer of the floor of the mouth is almost impossible when the disease has invaded the gingival mucosa. Cancer in the floor of the mouth developing behind the level of the first bicuspid is likely to be much more extensive when first recognized, and to be less accessible for treatment by radiotherapy than are the lesions developing in the anterior one-third. A high index of suspicion should be maintained by physicians when they are confronted by even small areas of ulceration or discomfort in the floor of the mouth and when the patient is in the older age group. In conducting an examination for oral cancer, one not only must utilize his facilities of careful inspection, but must palpate by means of an examining finger, just as in scrutinizing questionable rectal lesions. I never cease to be amazed by the sensation which even an early cancer in the oral cavity conveys to the examining finger.

LESIONS OF THE SOFT PALATE AND TONGUE

Primary cancer of the soft palate is rather unusual, and in my experience it has usually been too extensive for cure by means of radiotherapy. It has usually spread to one or both of the anterior pillars by the time the disease is recognized, and furthermore, cancer with either primary or secondary involvement of the anterior pillars has, in my own experience, been most unamenable to radiation treatment.

Two anatomic sites of origin for cancer are present in the tongue: (1) the mobile portion or anterior two-thirds, and (2) the fixed portion or base. Cancer developing on the mobile portion of the tongue can be treated by either aggressive surgery or interstitial radium. The use of interstitial radium is a rather highly specialized procedure requiring considerable experience. As a consequence, there probably are more surgeons than radiotherapists capable of managing the cancer that develops in this area. Yet when qualified men exploit their respective technics to the utmost, surgery and radiology are capable of virtually parallel results.

CANCER OF THE OROPHARYNX

In the oropharynx there are four anatomic sites of origin: (1) the tonsil, (2) the base of the tongue (fixed portion), (3) the free margin of the epiglottis and (4) the pharyngeal wall.

Cancer originating on the base of the tongue is unfortunately almost always quite far advanced when the diagnosis is established. For reasons that I do not quite understand, cancer can grow to quite sizable proportions here without producing symptoms even remotely suggestive of disease. I have seen cancer develop here under the repeated observation of competent physicians with a high index of suspicion. Certainly in this area the examining finger is as important as the laryngeal mirror in establishing a diagnosis, if not more so. Cancer of the base of the tongue is quite radiosensitive, and even radiocurable by external roentgen therapy, provided that the disease has not advanced too far. By virtue of having an excellent blood supply, the base of the tongue will tolerate high-volume doses of ionizing radiation.

Cancer of the free margin of the epiglottis presents a different problem, however. In my own experience, cancer developing in this site is almost always quite far advanced when first seen. Another complicating factor is the fact that the mucosa lies in close contact with the epiglottic cartilage, and a preexisting perichondritis almost always exists by the time the disease has been recognized. In consequence, radiation therapy, when aggressive, will almost always be complicated by a radionecrosis of this cartilage.

Cancer originating in the tonsil is also usually well advanced by the time the true diagnosis is established. There is no real reason for tardiness in this diagnosis, however, for tonsillar cancer usually exhibits relatively early symptoms, confined to one tonsil in a patient past the age of 60. Furthermore, a review of my own material has indicated that most of these patients consulted their physicians early because of discomfort and/or pain in the tonsil.

Apparently there is a very low index of suspicion of this particular type of cancer. I believe that all patients past the age of 60 who present with signs and/or symptoms of a unilateral tonsillitis should be investigated immediately so that cancer can be either eliminated or proved. A prompt establishment of the diagnosis of early tonsillar cancer is very important because lesions in this particular anatomic site lend themselves very well to radiotherapy. Tonsillar cancer is not only exceedingly radiosensitive but, I am sure, radiocurable in a large number of cases if it is diagnosed and if treatment is instituted before nodal involvement occurs. Cancer developing on the oropharyngeal mucosa, on the other hand, is probably never cured by means of radiotherapy. The biological behavior of cancers in this site, and also in the mucosa of the hypopharynx, is such that their management is especially difficult.

CANCER OF THE NASOPHARYNX

Cancer developing on the mucosa of the nasopharynx is always approached by means of radiotherapy because of its inaccessibility to surgery. In this anatomic site, again, the disease is usually quite far advanced when the diagnosis is established. It is in an area where the symptoms are various, manifold and often bizarre, and also in an area that is somewhat difficult to examine. This is a place where the histologic picture plays an important role from the standpoint of prognosis. A considerable number of cancers developing in the nasopharynx present histologically as undifferentiated carcinomas. As a consequence, they are exceedingly radiosensitive, and the possibility of long-time survival and cure exists when patients are treated aggressively by external roentgen ther-

apy. Squamous carcinoma in this region, on the other hand, has essentially the same prognosis as does cancer developing on the mucosa of the oropharynx and the hypopharynx. Unfortunately, advanced local disease and/or nodal involvement is common in this area, with an accompanying poor prognosis.

Cancer originating in the hypopharynx, including the lateral and the posterior pharyngeal walls and also the pyriform sinus, have an exceedingly poor prognosis from the standpoint of cure by means of radiotherapy.

LARYNGEAL LESIONS

There are two anatomic sites of origin for cancer of the larynx. The lesion may originate on the vocal cords—i.e., true cord cancer—or it may begin in the laryngeal vestibule. The laryngeal vestibule includes anatomic sites such as the laryngeal face of the epiglottis, the false cords and the ventricular cavity. Cancer of the vocal cord should be—and as a matter of fact is—very frequently diagnosed at an early stage. By that I mean a stage before the cords become fixed. Persistent hoarse ness in any patient past the age of 50 should be thoroughly investigated to determine whether or not cancer of the true cord may be present. Cancer of the vocal cords is characterized primarily by the presence of constant hoarseness, and it is likely to be progressive. It is very important that we diagnose cancer of the vocal cord before the stage of fixation begins, for without fixation the prognosis is exceedingly good, both from the standpoint of cure and from the standpoint of restoring the voice through external roentgen therapy. On the other hand, once the cords have become fixed, the chance for cure by this means becomes remote.

Cancer originating in the laryngeal vestibule is likely to have reached a relatively advanced stage before the diagnosis is established, for there is more space in which the cancer can grow before producing symptoms. Also, vestibular cancer tends to metastasize to regional nodes earlier. I have been able to treat a few early lesions in this anatomic site —ones that had been detected by physicians having a high index of suspicion. Vestibular cancer also has a fairly good prognosis from the standpoint of radiation therapy if it has been discovered early, but the incidence of such lesions, as I have said, is exceedingly small.

Lesions of the larynx which have extended to such a degree as to produce fixation of the cords, or extended into the hypopharynx to a degree producing both hoarseness and dysphagia, are not problems for radiotherapy from the standpoint of cure. I might also add that I have never effected a long-time survival in a patient with laryngeal cancer when the symptoms were such that a tracheostomy was required.

CANCER OF THE NASAL ACCESSORY SINUSES

Lastly, in dealing with cancer originating in the nasal accessory sinuses, we have in the vast majority of cases to consider only primary carcinoma of the maxillary sinuses. Cancer developing primarily in the ethmoids is invariably quite far advanced when first found, and carries a very poor prognosis, regardless of the method of treatment. Unfortunately, cancer of the antra is also usually far advanced when first seen—and by far advanced, I means that it almost always presents with evidence of bone destruction either in the lateral or medial wall or in the roof. With bone destruction, of course, any cancer is likely to have a very poor prognosis. There *must* be a stage in which cancer of the antrum can be diagnosed early. The one type of help that I think radiologists can offer in the problem is to warn of the possibility of cancer whenever radiographs of the maxillary sinuses demonstrate a unilateral opacity of the antrum. In my experience, that finding has occasionally constituted a sign of cancer in the absence of bone destruction.

Cancer of the antrum is generally regarded as a primary surgical problem, despite the poor prognosis. It is my belief that much of the disease should be eradicated by surgery, with the establishment of adequate drainage in the hard palate, and then that a full cancericidal dose of radiation should be delivered to the involved area. In my own experience, radiation therapy alone has produced only one long-term survival with a cancer of the antrum. Histologically, the lesion was very undifferentiated, even though it had involved the bone. Currently, the patient has an osteoradionecrosis, but he has remained free of disease for longer than five years.

SUMMARY

In conclusion, I wish to say that the various anatomic sites of origin for cancer of the head and neck have been reviewed. Those which, in my experience and in the experience of others, have been found potentially curable by means of radiotherapy have been pointed out. Physicians to whom these patients come for advice must, above all things, maintain a high index of suspicion if we are to discover more early lesions that are potentially curable by this modality.

AT&T TELECAST

The second television program in the Bell System's series on the working of parts of the human body will be presented over a nationwide network on October 23. For the exact time, viewers should consult their newspapers. This sequel to "Hemo the Magnificent" will be entitled "Gateway to the Mind."

The participants will include Dr. Wilder Penfield, a Montreal brain surgeon; Dr. Hadley Cantril, a Princeton psychologist; Dr. George Wald, a professor of biology at Harvard; Dr. Frederick Crescitelli, a professor of zoology at U.C.L.A.; and Dr. Frank Baxter, the U.C.L.A. English professor who has been master of ceremonies for previous telephone company telecasts.

Respiratory Allergy and Superimposed Infections

J. WARRICK THOMAS, M.D.

RICHMOND, VIRGINIA

ALL PHYSICIANS, whether specialists or general practitioners, are concerned daily with patients having problems involving either the upper or the lower respiratory tract. This discussion will deal primarily with allergic reactions and superimposed infections.

First, we must differentiate between pathologies that exist primarily as allergic reactions and those that are complicated by superimposed infections. The relationship between respiratory allergies and respiratory infections is very close. One not infrequently encounters a frank respiratory allergy initially, and later finds it complicated by a superimposed infection.

I shall divide my presentation into two parts: the involvement of allergies and infections of the upper respiratory tract; and allergies and infections of the lower respiratory tract. And I shall subdivide my discussion of each of those areas into clinical manifestations of allergy, and clinical manifestations of complications.

ALLERGIES AND INFECTIONS OF THE UPPER RESPIRATORY TRACT

The chronic involvements of the nose and paranasal sinuses are of three sorts. First are the reactions to certain allergens or allergenic substances. Patients with those sorts of difficulties present symptoms characterized by sneezing, itching, obstruction, discharge, edema and eosinophilic infiltration of the involved tissues. The secretions are found to contain eosinophils.

Second are the infections that commonly are superimposed upon the allergic reactions. They are characterized by a purulent discharge containing bacteria and a predominance of neutrophil cells. The inflamed tissues are infiltrated by neutrophils, lymphocytes and connective-tissue cells, along with the bacteria.

The third sort of involvement is to be found in patients who, primarily, have an infected mucous membrane without any associated allergic manifestations. The membrane is found to be rather thin and fibrous, and may be covered by a granulation tissue. Polyps are very rare in this group. Shambaugh[5] has reported that in 90 per cent of a group of patients having chronic nasal infections, an underlying allergic factor was responsible for chronicity, and of those patients having chronic infections of the sinuses, 70 per cent had an underlying allergic factor. Kuhn and Linton[4] studied a group of 720 patients and reported that 19.4 per cent showed symptoms explainable on a basis of allergy. One must consider infections outside of the nose and paranasal sinuses, which include those coming from abscessed or infected teeth and involving a sinus, and those resulting from the removal of a tooth that had a lead extending into the antrum.

Diagnosis. In undertaking the differential diagnosis of nasal allergy and infection, one must take a detailed and careful history, and must correlate the data thus obtained with the clinical, rhinoscopic and roentgenographic findings, as well as with the cytologic study of nasal smears. Hansel[2] has done a great deal of work with various types of stains, and he feels that the cytologic picture is one of the most important aids to the physician in arriving at a diagnosis.

The presence of many eosinophils in the nasal secretions indicates an allergic condition. Allergy many be more or less excluded when there is a persistent absence of eosinophils, except in cases complicated by suppuration. In patients having primary infections, the neutrophils are predominant, and they gradually disappear as the discharge becomes clear, watery or mucoid. One may also examine specimens from the antrum. A simple way of obtaining specimens for a nasal-smear examination is to have the patient blow his nose on a piece of waxed paper or on a cotton swab. Various types of non-infectious rhinitis may be observed in adults as well as in children. Among these, we may see a true atopic or perennial allergic rhinitis, a seasonal hay fever or a combination of the two. Usually, these result from some inhalant such as dust or one of the pollens.

These problems are especially important in pediatric practice. Throughout their childhood, patients may be observed to have periodic fever and recurrent flare-ups of a mucopurulent nasal discharge. In the past, adenoidectomy was regarded as the best form of treatment, but since the advent of antibiotics, this procedure has been discouraged, as a general rule.

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In children who suffer from chronic and repeated infections or from an allergic manifestation, the most important point to be considered is the family background. Oftentimes, a history of allergic disease or allergy in the mother or father proves significant. The children may have concomitant manifestations such as eczema or hives. It is important to remember that they should not be treated with too many chemotherapeutic agents when the symptoms have occurred over a fairly long period of time, unless a definite diagnosis has been made. Certainly, these children may develop chronic coughs along with their allergic rhinitis and accompanying post-nasal drip. Sometimes this situation has been thought to be a forerunner of bronchial asthma, present either with or without infection.

Complications. Along with a nasal allergy and a superimposed infection, there may be an involvement or complication of the middle ear, with alternating periods of deafness and normal hearing. Recurrent attacks of rhinopharyngitis involving the mouth of the eustachian tubes facilitate infection in that area, and the difficulty may extend up into the middle ear. Since the advent of antibiotics or chemotherapeutic agents, there has been much less need for excision and drainage in acute mastoid cases, and we are seeing much less mastoiditis.

Nasal polyps in the early stages may be observed in perennial nasal allergy when there are superimposed infections. At times, they may undergo connective tissue organization and become somewhat fibrotic. When these polyps cause nasal obstruction and interfere with the drainage of the nasal passage as well as of the sinuses, polypectomy must be considered, and in certain of the more extensive cases, the normal antral opening will have to be enlarged.

One can use x-ray in differentiating between a sinusitis and a severe nasal allergy, for the former is characterized by an increased density. But in order to reach a diagnosis, it is necessary for one to irrigate the antra. If only mucoid material is obtained from such washings, it is reasonable to assume that infection is not a prominent factor. But when the return is definitely purulent, one must consider infections of varying degrees. Part of this infection may be due to obstruction and secondary stagnation related to an allergic swelling of the mucous membrane.

In a group of 128 allergic patients, Woodward and Swineford[10] found that 61 had no significant complications of infection. The infections in the remaining 67 patients included chronic ethmoiditis with obstruction, pansinusitis and mucosal degeneration, chronic maxillary sinusitis, and acute or subacute maxillary sinusitis. Today, the trend is somewhat toward the conservative approach, though formerly such cases were handled surgically, and through the use of chemotherapeutic agents and antibiotics, complications are being avoided and end results are relatively encouraging.

In summarizing the management of patients with allergic involvement and superimposed infections of the upper respiratory tract, I want to emphasize the desirability of preventive measures. So that allergic individuals may be less likely to get into difficulty, they should be placed on a strict allergy regime, including avoidance of troublesome inhalants and foods, and should be placed on a program of hyposensitization. Symptomatic local treatments such as nose drops and various inhalers are to be discouraged. They can be told to use oral antihistamines; dry heat in their environment should be humidified; and they can be briefed on the drugs to be used for temporary relief and the effects that those remedies can be expected to produce. Local reactions may follow the use of astringents and nose drops. Patients not infrequently become addicted, or after a brief period of effectiveness, drops may produce a sensitivity that results in an increased congestion or obstruction. Surgical intervention should be employed only when pathologic changes have taken place—when polyps, spurs or fibrosed hyperplastic tissue changes have produced a mechanical obstruction, or when complications such as sinusitis have not responded to conservative management. One should always be highly cautious about resorting to surgery.

Severe asthma is by no means an infrequent complication in certain instances. Repeated x-rays may show transitory changes. When cloudiness is unilateral, infection is most likely to be present, but sometimes one must irrigate the antrum or sinus to differentiate between a marked allergy and a superimposed infection. Whenever there is a doubt about diagnosis, rhinologic findings should be correlated with cytologic and bacteriologic studies.

ALLERGIES AND INFECTIONS OF THE LOWER RESPIRATORY TRACT

In considering diseases of the lower respiratory tract, it is necessary that we differentiate among allergic bronchitis, infectious bronchitis, bronchial asthma or asthmatic bronchitis with a superimposed infection, and bronchiectasis, and at times we must exclude Löffler's syndrome.

Allergic bronchitis. There are three classes or types of allergic bronchitis: (1) the perennial type, which may be chronic or recurring; (2) the seasonal type; and (3) an asthmatic bronchitis which is believed to be a bacterial manifestation of allergy. Allergic bronchitis may be first observed during infancy, and may recur throughout adulthood. It may be complicated by secondary infections, or it may result from one or more specific sensitizing substances in a susceptible individual. Further, it may be characterized by a chronic, recurring,

paroxysmal cough, and must be differentiated from the bronchitis produced by a frank respiratory-tract infection or an intrathoracic disorder. Many patients with allergic bronchitis are subject to complications such as bronchial asthma, pulmonary emphysema, asthmatic bronchitis and bronchiectasis if they are not properly treated.

Asthmatic bronchitis. We most frequently observe asthmatic bronchitis in children, and certainly it is more frequent than bronchial asthma. It is important for us to determine whether these cases represent respiratory infections in a child during an attack of asthma, or represent wheezing in a nonatopic child with an associated bronchitis. Often it is impossible for us to demonstrate a frank family history of allergy, and we must bear in mind that many of these children with histories of allergy develop a spasmodic bronchitis associated with acute respiratory infections. Stoesser[6] reports that as a child grows older, he is less susceptible to spasmodic bronchitis. During the first attack, one can't always determine whether a child has an allergic asthma. Periodically, there may be flare-ups of his fever, and according to Stoesser, "the presence of a positive allergic history, the presence of eosinophilia and the response to epinephrine aid in determining the allergic nature of his respiratory tract."

Some of these patients with bronchial asthma—particularly children—may have an accompanying temperature elevation over 37.7°C. or 100°F., rectally. Glaser[1] feels that this fever is probably due to an increase in the metabolism secondary to the muscular exercise coinstant to the dyspnea. He is also inclined to think that these asthmatic bronchitis attacks at any age are accompanied by physical signs of asthma, including wheezing and evidence of respiratory infection.

In differentiating between asthmatic bronchitis and bronchial asthma, we usually observe that the bronchitis starts with a marked coryza, accompanied by fever, and it ordinarily does not respond to epinephrine hydrochloride. The nasal smears may show a preponderance of neutrophils, and the sedimentation rate may be increased. Children who are subject to recurrent attacks of asthmatic bronchitis may subsequently become candidates for bronchial asthma. In 1943, I made a study along with Dr. Ross Taylor[8] of 2,033 consecutive admissions of patients with various forms of allergy, and we found that 12 per cent of them had allergic bronchitis, and 46 per cent of that group said that their bronchitis had followed an upper-respiratory infection such as a severe cold, whooping cough, influenza, pneumonia or something else of that sort. In certain cases, the onset of chronic bronchitis follows the pattern of true asthmatic bronchitis.

Bronchial asthma. This disease is usually recurrent, it may be either acute or chronic, and it is not infrequently associated with a low-grade infection, either of the bronchial tree or of the upper-respiratory tract. These asthmatics who do not respond to the commonly-used drugs such as epinephrine, aminophylline and nebulized epinephrine are frequently found to have an infection.

Patients who have recurrent attacks of bronchial asthma develop acute respiratory infections and at times display symptoms of quite severe asthmatic bronchitis. In the fall of 1957, Thomas *et al.*[7] reviewed the case histories of six children who had been observed for periods ranging from one to eight years. They had bronchial asthma complicated by superimposed infections, and asthmatic bronchitis with persistent or recurrent bronchial asthma. We classified these patients into (1) mild, (2) mildly severe and (3) severe asthmatic bronchitis groups. One child had died from an overwhelming infection and bronchial pneumonia after his twelfth hospital admission. Frequently, infection had initiated an attack of acute asthmatic bronchitis or status asthmaticus in an allergic child. Five of the patients suffered from asthmatic bronchitis, and they responded well to a regime consisting of oxygen and alevaires, sedation and rectal chloral hydrate, with intravenous glucose and saline, steroid therapy, antibiotics and supplemental measures. Apparently, epinephrine hydrochloride gave no relief until the patients had been adequately hydrated and until a response to antibiotic therapy had been observed. In our study group the steroids seemed to have played a prominent role in the therapeutic program. Three of the patients remained relatively free from asthma on a combined pediatric and allergy management.

Bronchiectasis. In chronic bronchitis patients who have productive cough, who expectorate large amounts of sputum, who sometimes wheeze and who present medium and coarse rales over the lungs, one must consider the possibility of bronchiectasis. Such a diagnosis is anatomic rather than etiologic. Bronchiectasis may be acquired from repeated infections or in the course of subsequent inflammatory reactions which weaken or destroy the elasticity of the bronchial wall. When elasticity is gone, the action of the dilating force upon the infected and weakened bronchi may produce this condition.

In a group of 190 consecutive patients seen over a five-year period at the Cleveland Clinic, Dr. Van Ordstrand, Dr. Tomlinson and I[9] observed that 48 per cent had major allergy of the respiratory tract, and that the allergy could be considered a complicating factor. At that time, treatment included sulfonamide therapy along with allergy management. We observed that a recurrence of symptoms frequently followed respiratory infections or cessations of allergy management, and there sometimes was a recurrence when the courses of sulfonamides were infrequent.

Löffler's syndrome. When roentgenographs contain transient shadows of varying amounts of pulmonary consolidation, but the patient is afebrile and otherwise asymptomatic, one must consider

Löffler's syndrome. Hansen-Pruss and Goodman[3] have listed the following as essential to a diagnosis of Löffler's syndrome: (1) varying degrees of pulmonary consolidation—at times multiple and migratory—recognized on roentgenographic examination of the chest; (2) occurrence in an allergic individual; (3) a varying leukocytosis and eosinophilia; (4) an afebrile clinical course; (5) persistent severe asthma; (6) lack of response to known sulfonomides; and (7) frequent respiratory infections. Hansen-Pruss and Goodman established their criteria on the basis of six patients who had severe bronchial asthma. Although most individuals with Löffler's syndrome run an afebrile course, some of them experience slight elevations of temperature.

TREATMENT

When one encounters a superimposed infection in respiratory allergy, one must determine the type in order to employ the treatment which will control the infection most rapidly without engendering a drug reaction. For this purpose, it is necessary that one have an adequate history of the patient's previous drug sensitivities. At times, when patients are not responding to an initial therapeutic agent, one must do cultures and bacterial sensitivity studies in order to determine the appropriate antibiotic.

It is wise that a rhinologist and an allergist examine and treat many of these patients jointly. Treatment should include local therapy, antibiotic therapy, anti-allergic management and symptomatic therapy. In considering infections of the lower-respiratory tract, the physician will find it desirable, in addition, to do bronchograms and bronchoscopies not only as diagnostic but as therapeutic measures.

Autogenous vaccines prepared from the bronchial aspirations, sinus irrigations and cultures of the nose and throat frequently offer effective therapy for patients who have failed to respond to hyposensitization with stock vaccines and to chemotherapy.

Steroid therapy, along with adequate antibiotic coverage, occasionally proves most helpful. It may shorten the period of acute illness, and at times it may even be life-saving.

On occasion, we find patients who cannot tolerate certain of the antibiotics. It is then necessary that we substitute other antibiotics which may offer us comparable results. Frequently, the dosage of an antibiotic is inadequate, and often one makes the mistake of giving one of these drugs for too short a length of time. We always make it a practice to treat any of these patients with infection for a minimal period of five days with an adequate dosage, and in many instances a more prolonged course of therapy is desirable. Dosages are tailored to fit individual cases. In some instances, chemotherapeutic agents have been continued for weeks or months in chronic infections, in order to enable the patient to carry on his occupation and control the infection. In general, however, long courses of therapy are discouraged, and it is urged that patients be kept under direct observation whenever such courses are instituted.

SUMMARY

Chronic respiratory infections of the upper- and lower-respiratory tract with superimposed infections have been considered. A differential diagnosis has been given, and appropriate therapy has been suggested. Consultations with allergists, otolaryngologists and rhinologist, and the availability of x-ray and other laboratory procedures will govern one's program of management, based upon the findings.

Frequently, these allergic individuals with superimposed infections should be handled conjointly by an allergist, an otolaryngologist or rhinologist, and an internist.

REFERENCES

1. Glaser, J.: Differential diagnosis of bronchial asthma in infants and children. Ann. Allergy, **4**:409-424, (Nov.-Dec.) 1946.
2. Hansel, Frank K.: "Allergy of the Nose and Paranasal Sinuses." Graduate Instructional Course in Allergy: American College of Allergists. Jefferson Medical College, 1946.
3. Hansen-Pruss, O. C., and Goodman, E. G.: Allergic pulmonary consolidation. Ann. Allergy, **2**:85-108, (Mar.-Apr.) 1944.
4. Kuhn, H. A., and Linton, L. D.: Allergy in relation to otolaryngology. Ann. Otol., Rhin. & Laryng., **51**:162-169, (Mar.) 1942.
5. Shambaugh, G. E., Jr.: Nasal allergy for practicing rhinologist. Ann. Otol., Rhin. & Laryng., **54**:43-60, (Mar.) 1945.
6. Stoesser, A. V.: "Perennial Rhinitis and Asthma," Fall Graduate Instructional Course in Allergy: American College of Allergists. Baylor University College of Medicine, October 31-November 5, 1949.
7. Thomas, J. W., King, N. B., and Fisher, M. W.: Treatment of asthmatic bronchitis, including use of steriods and antibiotics. (Accepted for publication in the VIRGINIA MEDICAL MONTHLY, 1958).
8. Thomas, J. W., and Taylor, R. V.: Allergic bronchitis. Ann. Allergy, **1**:185-198, (Nov.-Dec.) 1943.
9. Thomas, J. W., Van Ordstrand, H. S., and Tomlinson, C.: Treatment of bronchiectasis with chemotherapy and allergy management. Ann. Int. Med., **23**:405-413, (Sept.) 1945.
10. Woodward, F. D., and Swineford, O., Jr.: Allergic rhinitis; analysis of 128 cases in which rhinologist and allergist collaborated. Arch. Otolaryng., **34**:1123-1132, (Dec.) 1941.

GASTROENTEROLOGIC CONVENTION

The twenty-third annual convention of the American College of Gastroenterology will be held at the Jung Hotel, in New Orleans, on October 20-22. In addition to the many individual papers, there will be panel discussions on gastric carcinoma, steroids in gastroenterology, and functional disturbances of the gastrointestinal tract. The sessions will be open to all physicians without charge.

On October 23-25, immediately following the convention, the annual postgraduate course in gastroenterology will be offered. Attendance will be limited to those who have registered in advance. In addition, a one-day regional meeting is to be held at the University Hospital in Mexico City on October 27. For copies of the program, address the College at 33 West Sixtieth Street, New York 23.

Parathyroid Adenoma

J. R. SCHEIBE, M.D., AND RICHARD SCHOONOVER, M.D.

BLOOMFIELD

PRIMARY hyperparathyroidism is caused by an adenoma of one of the parathyroid granules. The early symptoms in a particular individual may occur anytime from childhood to old age, they are vague and they are insidious in progression. Lassitude, asthenia and fatigue are early complaints probably associated with hypercalcemia. But there are patients who exhibit loss of weight, anorexia, nausea and mild upper-abdominal distress. Such ambiguity may explain the usual five-year delay in diagnosis. As the disease progresses, complications occur which are characterized by increased urinary frequency, thirst, renal colic, or skeletal pain, fracture and deformity. So prominent are these complications that many times the treatment is directed toward them, and the primary disease goes unrecognized. The maximum incidence of primary hyperparathyroidism occurs in the third, fourth and fifth decades. Cases appear earlier in males, but they are three times more frequent in females.

Bone changes such as osteitis fibrosa cystica or diffuse demineralization occur in about 60 per cent of the cases of hyperparathyroidism. Only 5 per cent show renal complications alone.

To diagnose the disease, one must first suspect its presence, and then one must determine hypercalcemia, hypophosphatemia or hypercalciuria. The following case is presented because it illustrates many of the characteristics of hyperparathyroidism and represents a seven-year follow-up of urinary complications.

CASE HISTORY

A 34-year-old white housewife was well until 1946, when she under went an appendectomy, following an episode of acute abdominal pain. During her hospitalization, she had two episodes of left renal colic postoperatively, but they subsided without infection and without recovery of the calculus. A pregnancy in 1949 was uncomplicated as far as the patient's genito-urinary system was concerned, and a normal child was delivered by Porro-cesarean section. These operations were done elsewhere.

For approximately one year before the patient's admission to St. Joseph Hospital in March, 1950, she complained of a constant dragging sensation in the right flank, radiating to the right groin, and of bouts of increased urinary frequency. There was no dysuria, urgency or terminal dissatisfaction. There was no hematuria. She had several episodes of anorexia, but no vomiting, chills or fever.

Physical examination was essentially negative, except for tenderness in the right costo-vertebral angle. An intravenous pyelogram revealed nephrolithiasis on the right. The serum calcium was 12.0 mg. per cent; the inorganic phosphorus was 6 mg. per cent; the total serum protein was 7.3 Gm. per cent; the alkaline phosphatase was 1.5 Bodansky units; and a Sulkowitch test was positive.

On March 17, 1950, after the patient's refusal to submit to a parathyroid exploration, a right nephrolithotomy was done, with removal of two calcium phosphate calculi. Eleven days later she was discharged from the hospital without urinary complaints.

During the next year, she was seen as an outpatient on several occasions. She complained of anorexia, ease of fatigue and eventually of left-sided flank pain, but of no true colic. In September, 1950, a K.U.B. film revealed no urinary calculi.

In April, 1951, the serum calcium was 12 mg. per cent, the inorganic phosphorus was 2.7 mg. per cent, and the alkaline phosphatase was 1.7 Bodansky units. At that time, a K.U.B. film revealed bilateral renal calculi. Again, the patient was advised to have an exploration for a possible parathyroid adenoma, but refused.

She seemed to get along quite well until November, 1951, when she was advised to enter the hospital for reevaluation of her kidney status and a possible parathyroid exploration. She was admitted to St. Joseph Hospital on December 10, 1951, and an intravenous pyelogram revealed the presence of bilateral renal calculi. The following chemistries were obtained: blood urea nitrogen 15 mg. per cent; urea clearance 86 per cent of normal; calcium 11.4 mg. per cent; phosphorus 1.2 mg. per cent; albumin-globulin ratio 1.9:1.0; and alkaline phosphatase 4.3 Bodansky units. The urine revealed many oxalate crystals, and a quantitative measurement of urinary calcium showed 330 mg. in 24 hours. The serology was negative, the chest x-ray was essentially normal, and x-rays of the long bones revealed no evidence of bony changes. An EKG revealed tachycardia, prolonged Q.R.S., deviation of the S-T intervals (depressed in all limb leads), with a very short R-T interval.

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On December 14, 1951, the patient was subjected to an exploration of the neck for possible parathyroid adenoma. A small adenoma measuring approximately 1 cm. in diameter was found beneath the right side of the lower pole of the thyroid in the region of the inferior thyroid artery. Complete exploration of the neck revealed no evidence of other disease.

Postoperatively, the patient progressed extremely well, and she went home on her eleventh postoperative day with a discharge serum calcium of 8.3 mg. per cent, an inorganic phosphorus of 2.3 mg. per cent, an acid phosphatase of 1.1 Bodansky units, and an alkaline phosphatase of 2.5 Bodansky units. The total serum protein was 7.3 Gm. per cent, the albumin was 4.3 Gm. per cent, the globulin was 3 Gm. per cent, and the albumin-globulin ratio was 1.4:1. The urine was normal. A complete blood count was normal. An intravenous pyelogram revealed normal function of both kidneys, with bilateral nephrolithiasis without evidence of secondary obstruction. The patient was discharged from the hospital in good condition and with a normal blood pressure.

During the next several years this patient was quite well. In January, 1958, when she was admitted again for evaluation of her present kidney status, the following blood chemistries were obtained: N.P.N. 38.8 mg. per cent; serum calcium 8.5 mg. per cent; inorganic phosphorus 2.3 mg. per cent; alkaline phosphatase 2.5 Bodansky units; acid phosphatase 1.5 Bodansky units; total protein 7.3 Gm. per cent; and albumin-globulin ratio 1.4:1. The urine was normal, and the blood count was normal. An intravenous pyelography during that hospitalization showed normal function and status of the kidney, except for the presence of bilateral nephrolithiasis. The patient was discharged from the hospital without complaints.

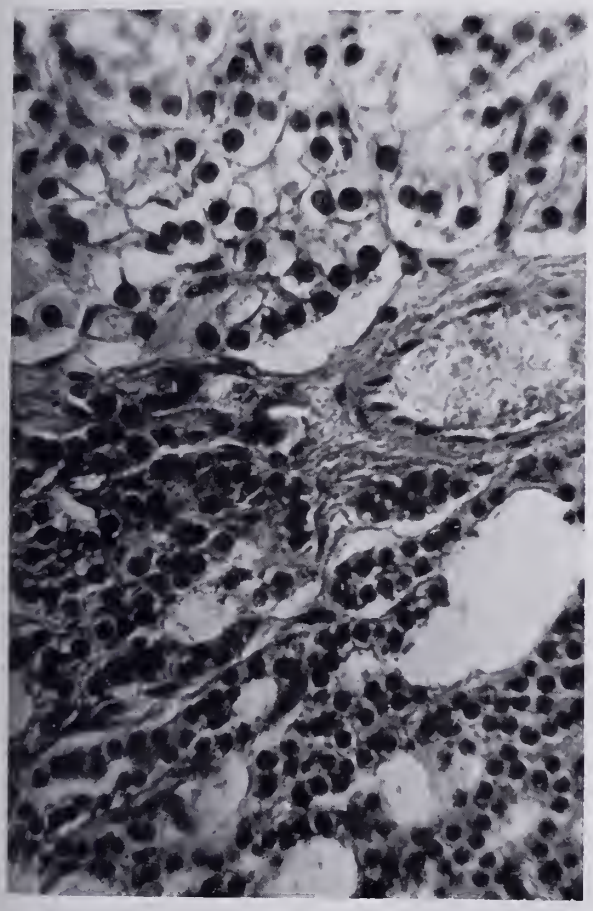


Figure 1. Adenoma of the parathyroid (x 550), showing portions of a well-encapsulated tumor. There are many cords of pale, clear cells with dark-staining nuclei.

DISCUSSION

When blood chemistries indicate exploration of the neck for a nonpalpable parathyroid tumor, it is best to start the procedure at the right lower pole. If further investigation is necessary, the left lower pole region should be searched next, and then the two upper poles. Subsequently, one must consider the mediastinum as a possible location, but migration doesn't extend lower than the thymus. Should a normal parathyroid granule be displaced in the dissection, it can be embedded in the sternocleidomastoid muscle for survival. For no particular reason, we began our dissection on the left lower pole, only to find the tumor just outside of the right lower pole.

As we have said, this patient had been subjected to an appendectomy, a Porro-cesarean section and a right nephrolithotomy, before undergoing surgery for the removal of a parathyroid tumor. Possibly the dystocia leading to the Porro-cesarean section was associated with hypercalcemia. The nephrolithotomy was done prior to excision of the parathyroid adenoma because the patient refused neck surgery for kidney pain secondary to stones. Because the recurrent kidney stones have since remained stationary and symptomless, their removal has not been advised. The recurrence of calculi convinced this patient that something other than lithotomy procedures would be required for cure. Then, at the end of the usual five-year delay, the removal of a parathyroid adenoma satisfactorily restored her well being.

The tumor was small, well-encapsulated and characterized by the usual parathyroid cellular architecture, with a predominance of large, pale cells. Postoperatively, there has been no evidence of recurrence.

The reduction of the serum calcium to 6.3 mg. per cent during the early postoperative period is a phenomenon which has been mentioned by others. It did not require parathormone administration, and there was no tetany at any time.

SUMMARY

Parathyroid tumors are usually found about the right lower pole of the thyroid, they are associated

with vague clinical symptoms, and they are usually identified by blood chemistries after the occurrence of bony or renal complications. And finally, bilateral renal calculi remain stationary following the removal of the adenoma—in our patient's case, for seven years—with no evidence of parenchymal damage or malfunction.

REFERENCES

1. Albright, Fuller, and Reifenstein, E. C.: Studies in Parathyroid Glands and Metabolic Bone Disease. Baltimore, The Williams & Wilkins Company, 1948.
2. Kinder, C. H.: Hyperparathyroidism; 24-year follow-up of case. Guy's Hospital Reports, **106**:58-64, (No. 1) 1957.
3. Norris, E. H.: Parathyroid adenoma, study of 322 cases. Internat. Abst. Surgery, **84**:1-41, (Jan.) 1947.
4. Janelli, D. E.: Parathyroid glands, with special emphasis on surgical aspects. Internat. Abst. Surgery, **102**:105-125, (Feb.) 1956.

Cholecystectomy Performed During The Post-Optimal Period

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MASON CITY

IN THIS PAPER, I shall review the management of acute cholecystitis and present my experience in 61 cases treated surgically during what has been designated as the post-optimal period.

Much of the literature discussing this subject borders upon the philosophic, and the variance of opinion indicates that there is no complete agreement as to the best course of action. The proponents of surgical treatment have spoken feelingly as to their preference, but have been forced to admit that in any given case, since the conditions of the clinical situation do not allow for a controlled experiment, the course of action which is selected may be the incorrect choice for that patient.

Many surgical writers favor operative intervention within the first 12 to 48 hours following the onset of acute disease. Cholecystectomy is not a procedure to be undertaken lightly in any instance, and the literature warns the unwary about vascular and ductal anomalies of the gallbladder and common duct, and contains treatises on reconstruction of the damaged common duct. For surgeons who undertake surgery for the relief of acute gallbladder disease, such warnings must be emphasized even more forcefully, and they must be cautioned about the increased hazards of trauma to this area.

LITERATURE

In considering this topic, it is interesting to review a representative series of surgical texts written between 1904 and 1957. The discussion of acute cholecystitis in one of the earlier books outlines the symptomatology of the disease, referring to the onset of severe right-upper-quadrant pain associated with typical posterior and subscapular radiation, and accompanied in varying degree by vomiting and general malaise. At that time (1904), A. J. Ochsner said, "It is ordinarily unwise to operate during an attack of gallstone colic."[1] He went on to discuss treatment consisting of moist heat to the abdomen, bed rest and the judicious use of enemata. Only under the most dire circumstances did he recommend cholecystostomy.

In a text of the early 1930's, we find the following statement: "In acute cholecystitis associated with impacted stone in the cystic duct or fundus, the case must be treated by complete removal of the organ."[2] This text indicated that surgical therapy could be undertaken even during an acute attack. In 1937, Christopher made the following statement in his TEXTBOOK OF SURGERY: "It is conceded that in many acute abdominal conditions it is safer to operate when the acute symptoms have abated, rather than when the attack is at its height. Some very competent surgeons subscribe to this view in dealing with acute cholecystic disease. However, the tendency is more and more to early surgical intervention."[3]

Texts prepared during the late 1940's and early 1950's still left room for individual interpretation and indicated a great variance of opinion.[4] One can find remarks such as this: "The usual attack of acute cholecystic disease subsides in 4 to 10 days, and should be conservatively managed."[5] However, one finds the added statment that there is increasing agreement that operation is indicated within the first 12 to 24 hours following the onset of an attack.[6] Finally, in a recently published general surgical text, a discussion of this problem suggests the conclusion that no set recommendations can be followed.[7]

It is possible to cite dramatic opinions on both sides of the argument. The following quotations indicate the strength of the feelings that have been expressed, and it is probable that these authors have expressed themselves even more forcefully in personal discussions with their associates. Marshall has declared: "The treatment of acute cholecystitis presents a problem about which there is no agreement as to the optimum time of surgical intervention. Recently the medical literature has

been filled with reports on this subject. Application of rigid rules of treatment is difficult, and watchful waiting may lead to serious complications. In our opinion each case should be regarded as an emergency and operation carried out as early as possible."[8] The following quotation from an editorial entitled "Acute Cholecystitis—Why Delay?" by C. G. Heyd illustrates the extent to which the problem has been dramatized: "The indication is to operate carefully, with due celerity, relieve the mechanical obstruction and provide drainage. Teachers of surgery who lend their prestige and give support to a policy of waiting provide authority for timid surgeons, inexperienced operators and procrastinating practitioners."[9] It is important, however, that genuine respect for the complexity of surgical therapy for acute cholecystitis and recognition of the technical pitfalls that may be encountered should be instilled into all surgeons during their period of training.

The pathologic physiology of this emergency is not completely understood, nor has any accurate way been found to correlate the exact status of the diseased organ with the physical findings, symptomatology and laboratory studies of the individual patient.

General agreement has been reached as to the basic changes which occur in the gallbladder. In the majority of cases, these changes are associated with calculus obstruction of the distal end of the organ, which produces increased intra-cholecystic pressure and resultant action of bile upon the wall of the organ. Vascular congestion then occurs, with resultant gangrenous changes and supervening infection. In practically all instances, small, gangrenous areas are found microscopically, although the organ may not appear generally to have undergone this change.[10] The following statement emphasizes the difficulty of clinical-pathologic correlation: "By and large, the older the patient the more difficult it is to estimate the exact nature of the process by physical examination, temperature or blood count—namely, whether the wall of the bladder is gangrenous, or whether a perforation is impending. These patients are more prone to develop postoperative complications that contribute to a higher mortality rate. The conclusion again is, early surgical treatment is the best protection for the patient."[11] The following statement is in the same vein: "A lack of parallelism between severity of the pathologic process and clinical signs is often apparent. The clinical picture may frequently lead to the impression that the process is subsiding when in reality progression and perforation may be imminent."[12]

In their article "Studies on Acute Cholecystitis," Ross, Boggs and Dunphy have entitled one section of their analysis "The Pathologic Process in Relation to Clinical Management and the Fallacy of the 'Critical Period.' "[13] They cite follow-up studies on individuals who had been treated conservatively for as long as one year following an acute attack, and point out that removal of the gallbladder at this late date following the acute process still indicated persistent acute changes within the gallbladder, as well as in adjacent structures. Their conclusion is as follows: "As soon as diagnosis is reasonably certain, fluid balance restored and antibiotic therapy begun, appropriate surgery should be carried out without regard for subsidence of the disease or the number of days that have elapsed since it started." This general conclusion is reached by other authors.[14]

At the present time, then, it seems fair to say that the majority of authors agree that cholecystectomy is indicated within the first 48 hours following the onset of an acute attack if the patient's condition warrants surgery, and if proper hospital facilities and well-trained professional personnel are available. It is with reference to the patient whose disease has progressed *beyond* this point that the debate rages. The articles through which the battle has been waged contain reports of mortality and morbidity, and comparisons of results can be obtained by referring to them. A review of typical mortality figures in cases operated upon for acute cholecystic disease at "the optimum time" reveals a range of 2.4 to 3.5 per cent in series containing from 84 to 527 cases.[15-20] In one recent series of 103 seriously-ill patients treated surgically, the mortality rate was 9.1 per cent.[21]

MY OWN STUDY

On the basis of the preceding review, I must make some qualifying statements before presenting my data. Almost all the cases to be reported had classic histories of acute gallbladder disease, with physical findings confirming the impressions gleaned from the histories. A total of 61 cases operated upon between July, 1951, and January, 1958, fulfilled the criteria for classification within this series. The ages of the patients ranged from 22 to 85 years, the average age being 59. The rather cumbersome title "Cholecystectomy Performed During the Post-Optimal Period" was designed to express the fact that all of the patients, either from a clinical or from a pathologic standpoint, underwent surgery after the arbitrary 48-hour optimal period had elapsed. In most instances the time estimates were reasonably reliable, for accurate histories of the onset of attack could be obtained.

A description of the operative findings typical in this series will serve as a base line for defining the term *post-optimal.* In every instance the operative findings proved sufficiently similar to justify this generalization.

The abdomen was explored through a right-upper-quadrant transverse incision, or a right paramedian upper-abdominal incision with lateral retraction of the rectus muscle. Obesity was found in the majority of these individuals. The gallbladder was an enlarged, thickened organ, frequently surrounded by omentum and usually adherent to

the paraduodenal structures. Calculi were found in every case but one, with the offending stone blocking the cystic duct or the distal end of the gallbladder. Serosal changes varied from grayish-yellow thickening of two or three millimeters to complete gangrene of the organ, with the entire wall of the viscus being from 1.0 to 1.5 cm. in thickness.

Trocar aspiration of the fundus facilitated dissection in every instance, and it was possible to dissect accurately and to ligate the cystic artery and duct individually in all but two cases. The surgical ideal of sharp dissection in the region of the ductal structures is attainable only with difficulty under these conditions. Careful use of gauze-tipped hemostats and gentle handling of gallbladder dissectors, with digital palpation of the area to identify the structures well-hidden within the edematous wrappings of the foramen, permitted accurate localization. In seven cases, exploration and T-tube drainage of the common duct were mandatory because of jaundice or suspected intraductal calculi. In approximately 60 per cent of the cases, it was possible to reperitonealize the gallbladder bed by suturing the cuff remnants. Gelfoam was used as a hemostatic agent in small amounts, as necessary. One or two plain Penrose drains were placed along the gallbladder bed and were brought out through the incision.

PREOPERATIVE CONDITIONS

How were these patients—all of them either acutely or desperately ill—suited for these surgical procedures? The following statements summarize the preoperative conditions and operative findings.

1. Right-upper-quadrant pain was the primary and most striking preoperative complaint. All but eight individuals complained of what the examiner termed "severe pain."

2. Nausea and emesis were clinical features in 38 cases.

3. Clinical jaundice was demonstrable in three instances, with the icterus index ranging from 24 to 33 units.

4. In only 15 cases was a moderate febrile reaction noted. The temperatures ranged from 102° to 98°F., and the average was 99°F.

5. Tenderness on examination of the abdomen was a constant finding, though the severity varied. In 18 cases a mass could be palpated in the right sub-costal area.

6. White blood counts ranged from 7,000 to 25,000 per cu. mm., with an average of 13,100 per cu. mm. Polymorphonuclear leukocytes varied from 54 to 96 per cent, the average being 78 per cent.

7. Serum amylase levels were within normal limits in five instances, when this determination was indicated.

8. Cholecystography had been performed in 18 cases, usually during previous attacks, and in all instances was reported as having shown nonfunction of the gallbladder.

9. The time lapse between onset of symptoms and operation varied from 2.5 to 16 days, the average interval being 4.5 days.

10. At operation in all instances, the surgeon classified the diseased gallbladders as acutely inflamed, as described. In two cases, there was gross rupture of the gallbladder.

11. In 50 cases, the pathologist agreed with the surgeon's classification, but in 11 instances he termed the process "chronic or sub-acute."

POSTOPERATIVE COMPLICATIONS

The following statements evaluate the postoperative complications in these cases.

1. In 13 cases, drainage of serum or bile was significant enough to be classified as a complication. Six patients in this group had T-tube drainage of the common duct. The duration of the drainage ranged from 2 to 11 days.

2. Wound infection as a complication occurred in two cases.

3. From the pulmonary standpoint, complications were surprisingly few. One patient developed atelectasis of a portion of the right lower lobe, and another developed a terminal pneumonitis.

4. Postoperative hemorrhage occurred 36 hours following surgery in one case. It was noted at the time of reexploration that this hemorrhage came from the edge of the sutured gallbladder cuff. Subsidence of massive edema was felt to have resulted in loss of hemostatic control, which had been established initially by means of a suture along this margin. In another patient, hematemesis and melena occurred six days following cholecystectomy and T-tube drainage of the common duct. This hemorrhage subsided following removal of the T-tube, and the exact etiology of the episode was not determined. This individual was one of two in whom accurate ligation of the ductal and cystic artery structures had been impossible.

5. Oliguria, with a drop in urinary output to 100 cc. during a 48-hour period, was noted in one case.

MORTALITIES

Four deaths occurred during the postoperative period, and thus the mortality rate was 6 per cent. Brief summaries of these cases follow.

1. Mr. C. V., 79 years old, had had an onset of symptoms six days prior to surgery. Rupture of the gallbladder was found at the time of exploration. The patient developed pneumonitis and wound infection, with dehiscence. He expired on the twelfth postoperative day.

2. Mr. C. S., 72 years old, had had his onset of symptoms six days preoperatively. Rupture of the gallbladder was noted at the time of exploration. The patient became anuric and expired on the eighth postoperative day.

3. Mr. R. W., 72 years old, had his onset of

symptoms three days prior to operation. He was found to have a gangrenous gallbladder, with multiple stones and associated hemorrhagic pancreatitis. Postoperatively, he became anuric and died on the sixth postoperative day. A postmortem examination proved the presence of hemorrhagic pancreatitis.

4. Mr. J. B., 77 years old, had his onset of symptoms seven days preoperatively. A gangrenous gallbladder was found. The patient's postoperative course was uneventful until the twelfth postoperative day, when he had a cerebrovascular accident, with right hemiplegia. He expired 30 days following operation, at which time his wound was completely healed.

FOLLOW-UP STUDIES

The follow-up studies on these patients have ranged in length from two months to six years following surgery. Of the 57 individuals, five have died of cardiovascular disease. One patient was reported by the referring physician as exhibiting marked senile changes, and his subsequent death, one year following operation, was apparently due to generalized arteriosclerosis. The four others died of myocardial infarction with congestive failure from two to four years after surgery for cholecystitis.

One patient (Mrs. C. A., age 55) was initially explored in 1951, and gangrenous cholecystitis and a para-cholecystic abscess were found. She developed jaundice in mid-1956, and required reexploration for removal of a common-duct stone. Another patient (Mr. B. B., age 78) was jaundiced at the time of exploration, in September, 1956. An actual fistula was found between the common duct and the gallbladder, with inflammatory destruction of the mid-portion of the common duct. End-to-end anastomosis of the common duct was accomplished at the time of the operation, and the patient did well following the procedure. However, he has been rehospitalized on three occasions since then, and his jaundice and the pain of which he has complained are probably indicative of recurrent common-duct obstruction, probably due to choledochal stone. Reoperation has been advised, but the patient has steadfastly refused his consent.

CONCLUSIONS

The patient with an obstructed and inflamed gallbladder is acutely and frequently critically ill. Usually he is referred to the surgeon only after the optimal period for surgical intervention has passed.

This type of patient deserves critical analysis, judicious application of supportive measures, and in my opinion, careful surgical removal or drainage of the diseased organ by properly-trained surgical and anesthetic personnel, working in a well-equipped hospital.

Since a truly accurate comparison of conservatively-managed versus surgically-treated cases is impossible, one can only speculate as to the outcome, in the cases which have been reviewed, if a program of worried waiting had been pursued.

Regardless of whether or not surgical relief had been attempted, it is likely that the four patients who died during the immediate postoperative period would have succumbed to bile peritonitis, hemorrhagic pancreatitis or a cerebrovascular accident.

It seems unfair to conclude that the immediate and delayed postoperative complications, though serious, were any more distressing or threatening to these patients than would have been the prolonged pain, narcotization, ileus and the Damoclean threat of perforation that a period of medical management necessitates.

REFERENCES

1. Ochsner, A. J.: Clinical Surgery. Cleveland, The Cleveland Press, 1904, p. 245.
2. Wakeley C. P. G., Hunter, J. B., and Coughlin, W. T.: Rose and Carless' Manual of Surgery. New York, Wm. Wood & Co., 1933, p. 1153.
3. Christopher, F.: Textbook of Surgery. Philadelphia, W. B. Saunders Co., 1937, p. 1308.
4. Puestow, Charles B.: A Handbook of Operative Surgery: Surgery of the Biliary Tract and Spleen. Chicago, The Year Book Publishers, 1953, pp. 97-98.
5. Cole, W. H., and Elman, R.: Textbook of General Surgery. New York, D. Appleton-Century Co., 1942, pp. 613-615.
6. Christopher, Frederick, ed.: A Textbook of Surgery by American Authors, Fifth Edition. Philadelphia, W. B. Saunders Co., 1949.
7. Allen, J. G., Harkins, H. N., Moyer, C. A., and Rhoads, J. E.: Surgery: Principles and Practice. Philadelphia, J. B. Lippincott & Company., 1957.
8. Marshall, S. F.: Acute cholecystitis. S. Clin. North America, **23**:647-653, (June) 1943.
9. Heyd, C. G., cited by Goldman, B. F., in: Review of acute cholecystitis. Internat. Abstr. Surg.; Surg. Gynec. & Obst., **87**:466-467, (Nov.) 1948.
10. Thomas, C. G., Jr., and Womack, N. A.: Symposium on recent advances in surgery; treatment of acute cholecystitis. S. Clin. North America, **29**:1445-1455, (Oct.) 1949.
11. Glenn, F.: Surgical treatment of acute cholecystitis. Surg. Gynec. & Obst., **90**:643-648, (June) 1950.
12. *Ibid.*
13. Ross, F. P., Boggs, J. D., and Dunphy, J. E.: Studies in acute cholecystitis; pathologic process in relation to clinical management of disease; fallacy of "critical period." Surg. Gynec. & Obst., **91**:271-276, (Sept.) 1950.
14. Patterson, H.: Acute fulminating cholecystitis. Surg. Gynec. & Obst., **89**:364-365, (Sept.) 1949.
15. Priestley, J. T., Walters, W., Gray, H. K., and Waugh, J. M.: Annual report on surgery of biliary system and pancreas for 1950. Proc. Staff Meet. Mayo Clin., **26**:505-513, (Dec. 19) 1951.
16. Waugh, J. M., Walters, W., Gray, H. K., and Priestley, J. T.: Annual report on surgery of biliary system and pancreas for 1951. Proc. Staff Meet. Mayo Clin. **27**:578-584, (Dec. 31) 1952.
17. Waugh, J. M., Walters, W., Gray, H. K., and Priestley, J. T.: Annual report on surgery of biliary system and pancreas for 1952. Proc. Staff Meet. Mayo Clin., **28**:765-768, (Dec. 30) 1953.
18. Priestley, J. T., Walters, W., Waugh, J. M., Judd, E. S., and Hallenbeck, G. A.: Annual report on surgery of biliary system and pancreas for 1956. Proc. Staff Meet. Mayo Clin., **32**:605-614, (Oct. 16) 1957.
19. Smith, B. C.: Acute cholecystitis; surgical treatment of 322 cases at Presbyterian Hospital, New York, 1932-1941, inclusive. S. Clin. North America, **25**:285-300, (Apr.) 1945.
20. Glenn, F.: Surgical treatment of acute cholecystitis. Surg. Gynec. & Obst., **83**:50-54, (July) 1946.
21. Johnson, P., and Close, M. B.: Acute gallbladder disease. California Med., **87**:291-294, (Nov.) 1957 (Condensed in Current Medical Digest, **25**:103, (Feb.) 1958).

Attend the
1959 ISMS ANNUAL MEETING
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Mercy Hospital, Des Moines

Clinico-Pathological Conference

May 6, 1958

CLINICAL HISTORY

M. J. T., a six-year-old white girl, was admitted to Mercy Hospital, Des Moines, on September 29, 1957, at 4:00 p.m. She died on September 30, 1957, at 12:15 p.m.

Chief complaint. Unconsciousness.

Present illness. On the evening prior to this illness, the patient had bumped her head while carrying a chair through a doorway. Her only visible injury was a "split lip." She had no other complaints at that time. On the following morning (9-29-'57), she complained of headache and abdominal pain. Vomiting started at 5:00 a.m., and was followed by diarrhea.

The physician who was consulted prescribed medication, and two doses of it were given to the child, but she vomited both of them. The child gradually lapsed into unconsciousness, and was brought to Mercy Hospital at 4:00 in the afternoon of September 29.

History. The past history was uneventful. The patient had received polio shots and other immunizations.

Physical Examination. In general appearance, the girl was pale and unconscious. She failed to react to any stimuli. Her skin was dry. The fundi showed early papilledema bilaterally. The pupils were moderately dilated and eccentric on the left. Her head showed a small hemorrhage at "6 o'clock" on the right. The teeth were tightly clenched.

No heart murmurs were present. The blood pressure was 124/74 mm. Hg., and the pulse rate was 76. Bilateral rhonchi were present over both lungs. Bowel sounds were normal, and no masses were palpable in the abdomen.

The upper extremities were held in flexion, and at first they were rigid, but they became flaccid shortly after the patient's admission. The left leg was flaccid, and the right leg was questionably flaccid.

The physiological reflexes were absent except for the right knee reflex. The Babinski was positive bilaterally.

Laboratory studies. At admission, the urinalysis showed an acid reaction, a yellow color and a specific gravity of 1.010. The albumin was negative, the sugar was 2+, there were no red blood cells, and only rare white blood cells. On the next day, September 30, there again was an acid reaction, an unchanged specific gravity, albumin negative, sugar positive 1.3 per cent, acetone negative and occasional red blood cells.

The hemogram on admission showed a hemoglobin of 13.8 Gm., or 91 per cent; red blood cells 4,815,000; and white blood cells 30,150, with a differential of 87 per cent neutrophils and 13 per cent lymphocytes. On the following day, September 30, a hemogram showed hemoglobin 19.5 Gm. or 126 per cent; red blood cells 6,099,000; and white blood cells 40,350, with a differential of 89 per cent neutrophils, 10 per cent lymphocytes and 1 per cent monocytes. The microhematocrit was 57 volumes per cent. Comment: Marked neutrophilic leukocytosis with mild left shift.

To both the VDRL and the Kline flocculation tests, the patient proved a "non-reactor." On admission, the CO_2 content was 32.8 volumes per cent, and on the next day it was 46.7 volumes per cent. The blood glucose on admission was 319 mg. per cent, and the next day it was 384 mg. per cent. On September 30, the cerebrospinal fluid showed a total protein of 295 mg. per cent.

X-ray studies. An x-ray study of the patient's skull was done on the day of admission, and the radiologist's report was as follows: "X-ray studies of the skull show both tables to be of normal density. No abnormal areas of rarefaction or calcification are seen. The sella turcica is well outlined and appears to be normal. No fractures are seen. Impression: Negative skull." Of his examination of the cervical spine, he said, "The alignment of the spine is good in both projections. No evidence of recent injury or bone disease is seen. Impression: Normal cervical spine." Regarding the thorax, he said, "Chest shows increase in the markings bilaterally, with prominent pulmonary conus which may be indicative of some type of congenital heart."

Clinical course. On admission at 4:00 p.m., September 29, the patient's temperature was 98°F., pulse 72, and blood pressure 124/74 mm. Hg. The child was taken to the x-ray department for x-rays, and after returning to her room she appeared cyanotic. At approximately 5:30 p.m., her respirations ceased, and artificial respiration was applied. Thick mucus was suctioned from her throat. An edotracheal tube was inserted, and oxygen was administered. The patient was then taken to the operating room, and bilateral burrholes were made in the skull and a ventricular puncture was performed on each side. On the right side, at a depth of about 4.5 cm, dark, bloody fluid was encountered under

increased pressure. The fluid was evacuated, and intermittently there was liquid resembling cerebrospinal fluid from the ventricle, suggesting that an intracerebral hematoma communicated with the ventricle. On the left side, bloody ventricular fluid under increased pressure was drained. At the conclusion of the operation, a lumbar puncture revealed bloody fluid under an initial pressure of 280 mm. H_2O. Throughout the procedure, the patient was carried on artificial respiration by the anesthesiologist.

On returning from the operating room, the patient was placed in a respirator (iron lung) and received 1,000 cc. of glucose in normal saline, and one ampule of Levophed. The fluid was given slowly, and was followed by 250 cc. of whole blood. The girl also received combiotic and Solu-Cortef, 100 mg., as an initial dose, followed by 50 mg. every six hours. The blood pressure during the following hours fluctuated between 70 and 130 mm. Hg. systolic. The temperature ranged from 94° to 98°F. At intervals, the patient became cyanotic. The pulse during the night was fairly stable between 80 and 90 per minute and strong, but slightly irregular. At 11:05 a.m., on September 30, the pulse became weak, and no blood pressure was obtainable. Again, 100 mg. of Solu-Cortef was administered slowly. At 12:00 m., the heart tones stopped, and no pulse was obtainable. The patient was pronounced dead at 12:15 p.m. September 30, 1957.

CLINICAL DISCUSSION

Dr. F. C. Coleman: The clinical discussion will be given by Dr. Robert A. Hayne. The only information available to him is that contained in the clinical history which was mailed to you with the notice of this meeting.

Dr. Robert A. Hayne: To summarize the clinical history of this patient: A six-year-old child sustained a minor head injury, and it was followed within 12 hours by headache, abdominal pain and vomiting. Within 18 hours, the child was unconscious, and within 36 hours, she was dead. The neurological changes which were observed to have taken place included bilateral positive Babinski reflexes and questionable flaccidity of the extremities.

The laboratory studies were essentially negative, except for sugar in the urine and a neutrophilic leukocytosis.

X-ray examinations of the skull, cervical spine and chest were negative. A bilateral craniotomy performed to determine the presence or absence of subdural hematoma yielded no evidence of subdural hematoma. The spinal fluid was bloody, however, and a hemorrhagic lesion in the right cerebral hemisphere was demonstrated.

If the clinical history is correct about the child's previous good health, there should be a causal relationship between the accident and the cerebral lesion that caused her death. Our differential diagnosis, therefore, should include lesions of the central nervous system that are caused by trauma and are capable of terminating fatally.

The commonest fatal traumatic injury to the central nervous system is hemorrhage. Such hemorrages may occur in individuals who are in good health, or they may occur in individuals with a latent disease which can give rise to hemorrhage as a result of trauma.

I should like first to discuss intracranial hemorrhages which occur in healthy individuals as a result of trauma. These include epidural hemorrhage, subdural hematoma, subarachnoid hemorrhage and intracerebral hemorrhage. Epidural hemorrhage is rarely seen in childhood because of the shallowness of the vascular grooves on the interior of the skull, and because of the looseness of the attachment of the dura to the skull. When present, however, it is almost always associated with skull fracture. In such cases, the fracture line usually intersects the course of one of the meningeal arteries or one of the venous sinuses. X-rays of the skull in this patient were negative for fractures. Thus, the possibility of an epidural hemorrhage is rather remote. It should be remembered, however, that linear fractures of the skull—particularly those involving the base of the skull—are difficult to demonstrate in x-rays.

Subdural hematoma is one of the commonest complications of head injury. It may occur over the convex surfaces of the hemispheres, or it may take place at the base of the brain. Such bleeding is usually much slower than that of epidural hemorrhage, and is caused by laceration of small, thin-walled veins which pass between the dura mater and the arachnoid. The trauma which causes subdural hematoma may be trivial or massive. Skull fracture is absent in many cases. The direction of the impact causing subdural hematoma is most commonly in the long axis of the skull.

The possibility of a subdural hematoma constituted the indication for bilateral craniotomy. The operative procedure eliminated, for practial purposes, the possibility of subdural hematoma over the cerebral hemispheres. However, it did not eliminate the possibility of a subdural hematoma over the base of the brain. Most subdural hematomas do occur over the cerebral hemispheres, however, and so the possibility of a subdural hematoma is not regarded as likely. This impression is confirmed by the rapidity with which symptoms developed, for symptoms in subdural hematoma usually appear more slowly.

Subarachnoid hemorrhage is very common in head injuries. It is usually associated with a focus of cerebral contusion and laceration. Occasionally, however, the only intracranial evidence of injury may be the presence of blood in the subarachnoid space. Bleeding may be limited to the site of the

impact, it may be contralateral or it may be bilateral.

At the time of the craniotomy, the neurosurgeon made the observation that the cerebrospinal fluid was bloody. Thus, the possibility of subarachnoid hemorrhage must be considered. It was his impression, however, that the subarachnoid hemorrhage was secondary to hemorrhage within the cerebral hemisphere. The minor nature of the injury is also not quite in keeping with subarachnoid hemorrhage. Usually, there is more external evidence of injury.

Intracerebral hematoma due to trauma is almost always associated with cerebral contusions or lacerations. Such lesions may be either on the side of the impact or contralateral. They are usually associated with severe trauma, and when they are present, the lesions are usually multiple. Single, deep-seated lesions within the cerebral hemisphere are almost always due to some cause other than trauma. The aspiration of hemorrhagic fluid from within the ventricular system would suggest intracerebral hemorrhage as a possibility. I just can't believe, however, that such a minor force could produce what would have to be an extensive intracerebral injury.

I should like now to discuss intracranial hemorrhages which may complicate preexisting lesions of the central nervous system. These may be precipitated by trauma. Such injuries are lesions of the vascular system of the brain, and may be either tumors or malformations. They may include telangiectases, angiomas and arteriovenous anastomoses. Telangiectasis usually involves the vessels of the leptomeninges. It is rare lesion, and it is frequently associated with congenital heart disease. The telangiectasia may be diffuse, and it would seem quite possible that the neurosurgeon might have seen telangiectasia of the leptomeninges when he performed the bilateral craniotomy.

Angiomas may be present in any part of the brain, but location in the brain stem is common. These lesions are usually venous, and consist of markedly dilated blood vessels. Rupture of these dilated vascular spaces may be precipitated by trauma. There is no previous history in this patient of nervous system disease that would suggest a preexisting lesion such as an angioma.

Arteriovenous anastomoses or malformations are among the most common congenital lesions of the central nervous system, being second only to congenital "berry" aneurysms. They usually lie on the surface of the cerebral hemispheres, and are most common in individuals who are in the second or third decade. Rupture of such lesions could conceivably be precipitated by trauma, but this is not likely.

The commonest congenital lesion of cerebral blood vessels is the congenital aneurysm. It usually involves the vessels making up the circle of Willis, and it occurs most frequently along the anterior or the middle cerebral artery. Although the aneurysm is congenital in origin, rupture rarely occurs in patients so young as ours, and trauma usually plays an insignificant role in such rupture.

A defect in the clotting mechanism may be responsible for the development of an intracranial hemorrhage secondary to minor trauma. There are several blood dyscrasias which are associated with defects in the clotting mechanism. These include thrombocytopenic and non-thrombocytopenic purpura, as well as deficiencies in fibrinogen and prothrombin.

Thrombocytopenic purpura of the idiopathic or essential type occurs in children and young adults, and is more common in females than in males. There is usually a history of bruising easily, bleeding into the skin or mucous membranes, or bleeding into the urinary or gastrointestinal tracts. The history in this case does not suggest such a possibility. Yet, the onset of essential thrombocytopenic purpura may be sudden. In this disease, the defect in the clotting mechanism consists of a decrease in the total number of platelets. The platelet count is usually below 100,000 per cu. mm. The white blood count is usually normal, but in the presence of bleeding—such as bleeding into the central nervous system—leukocytosis may be present. Intracranial hemorrhage is one of the commonest fatal complications of essential thrombocytopenic purpura, and such hemorrhage may be precipitated by trauma.

Other types of thrombocytopenic purpura are associated with exposure to drugs or chemicals, but there is no history of such exposure in this instance.

Non-thrombocytopenic purpura, or allergic purpura, occurs without a decrease in platelets. In children, however, this form of purpura is usually associated with symptoms referable to the gastrointestinal system or to the musculoskeletal system. There is no such history in this case. In allergic purpura, the tourniquet test is usually positive, and there is frequently a history of allergy.

A decrease in fibrinogen in a patient of this age would of necessity be a congenital deficiency in fibrinogen. In the absence of a previous history of bleeding, this is not regarded as a significant possibility in this case. Prothrombin deficiency is usually associated, in a child of our patient's age, with either liver disease, gastrointestinal disease or marked drug ingestion. Large doses of aspirin, for example, cause a marked reduction in the prothrombin level. There is no history, however, of aspirin intake, and there is no history suggestive of either liver disease or gastrointestinal disease.

Any disease which may be associated with intracranial hemorrhage is one of fulminating infection. This infection may be systemic, such as meningococcal meningitis, or it may be secondary to skull fracture. The only indication of infection

in the case under discussion is the neutrophilic leukocytosis, and it certainly is not pathognomonic of infection. Such overwhelming infections are usually associated with hemorrhages elsewhere, including hemorrhages into the skin. The x-rays of the skull, as I have already said, revealed no skull fractures.

Another underlying disease which might be complicated by intracranial hemorrhage following trauma is intracranial neoplasm. Neoplasms do occur in the central nervous systems of children, and they are frequently cystic. Hemorrhage into those neoplasms may occur following trauma. I suppose it is possible that such a neoplasm was present in the right cerebral hemisphere of this girl, and that the bloody fluid aspirated by the neurosurgeon was actually present because of hemorrhage into a tumor. There was no long history, however, of headache, unsteady gait, double vision, or nausea and vomiting which are common in children with brain tumors.

In conclusion, I should say that the minor nature of the trauma sustained by this child would suggest strongly that there must have been some underlying disease that precipitated intracranial hemorrhage. Even though there is no history of bleeding into the skin or mucous membranes, I believe that the most likely underlying disease is thrombocytopenic purpura. Bruising is so common in normal children as a result of the numerous minor accidents which they sustain every day that it can easily go unnoticed.

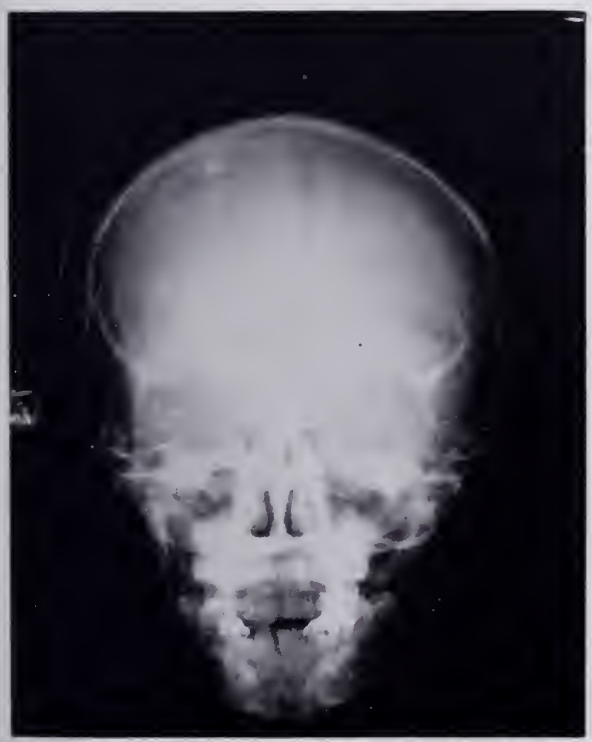


Figure 1. Photograph of x-ray of skull—anterior view. There are no fractures. The suture lines are intact, and both inner and outer tables are of normal appearance.

Clinical diagnosis: Fatal intracranial hemorrhage, probably secondary to thrombocytopenic purpura, and precipitated by trauma.

Dr. Coleman: Thank you very much, Dr. Hayne. Dr. Irving, would you like to comment on the x-rays?

Dr. Noble W. Irving, Jr.: As you know from the protocol, this child was brought to the x-ray department almost as soon as she reached the hospital. She was unconscious and highly cyanotic. Films of her skull and chest were obtained.

The films showed digital impressions throughout the skull, such as are seen with increased intracranial pressure in the older age groups, but certainly this was normal in a child of six. There was a linear shadow, irregular in character, that no doubt represented a suture. This was not separated as it would have been with increased intracranial pressure. The sella turcica was normal, contraindicating increased intracranial pressure, supra-sellar cyst or cranio-pharyngioma. No abnormal vascular patterns were present such as one might see with some type of arteriovenous malformation. Thus, the skull films were interpreted as normal.

Since the child was unconscious, cyanotic, supine and breathing poorly, we could not take an ideal picture for the evaluation of cardiac status. Noting the history of sudden onset of unconsciousness and cyanosis, and observing the prominent pulmonary conus and the increase in markings—some of them nodular—throughout both lung fields, we could presume an increased vascularity in the chest and raise the question of a possibly congenital heart.

Dr. Coleman: Thank you, Dr. Irving. The diagnosis of thrombocytopenic purpura has been proposed. Do we have others?

Dr. A. N. Smith: Hemorrhage into a preexisting brain tumor.

Dr. W. W. Hayne: Acute infections.

AUTOPSY FINDINGS

Dr. Coleman: Autopsy was performed approximately two hours after death. The body measured 46½ inches in length, and weighed approximately 60 lbs. Examination of the head was essentially negative, except that the right pupil was slightly larger than the left. The lips were cyanotic, and there was cyanosis of the fingernails and toenails.

Examination of the body cavities was essentially negative.

Examination of the heart was also essentially negative. The dependent portions of the lungs, however, were firm and purplish-red in color. The cut surfaces of the lungs were edematous, and microscopic examination confirmed this impression of pulmonary edema.

The principal findings were limited to the central

nervous system. When the skull was opened, no evidence was found of epidural or subdural hemorrhage. Marked cerebral edema was present, however, and the brain weighed 1,440 Gm., or almost twice the normal amount for the brain of a six-year-old child. A compression cone of the brain stem and the temporal lobes was noted. No lesions of the blood vessels of the circle of Willis were noted, and the blood vessels of the leptomeninges were also of normal appearance, except for congestion. In the right cerebral hemisphere, however, was a non-encapsulated, hemorrhagic, partially necrotic brain tumor which measured approximately 7 cm. in diameter and which involved the central portion of the hemisphere, including the basal ganglia. This neoplasm was associated with moderate dilatation of the lateral ventricles.

Microscopically, the tumor consisted of proliferating astrocytes which were markedly pleomorphic. Numerous blood vessels were present, many of which were thin-walled and stellate in shape. Numerous multinucleated giant cells were noted in some areas of the tumor. In other areas, however, the tumor cells were spindle-shaped and fibroblastic in appearance.

The final microscopic diagnosis on this tumor was astrocytoma, grade IV. According to an older classification, the lesions would have been designated glioblastoma multiforme. In the belief that the tumor cells arise from astrocytes, however, we

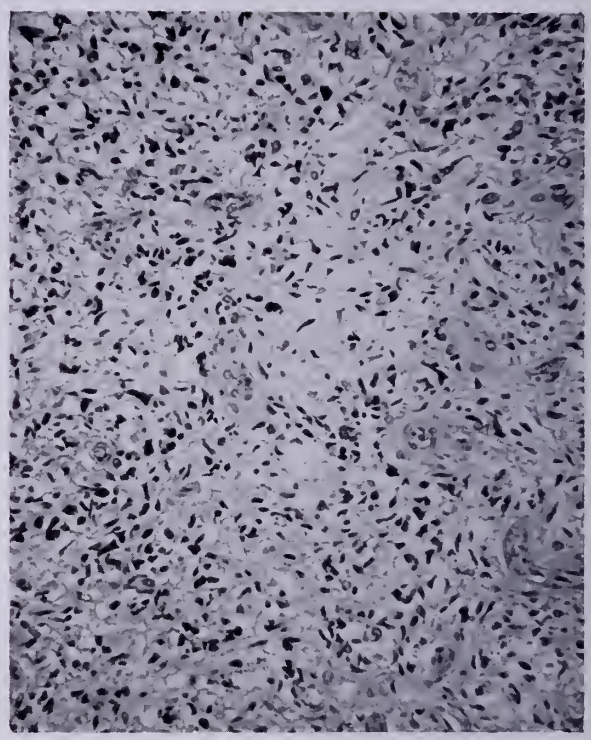


Figure 3. Photomicrograph of brain, showing astrocytoma, grade IV. This portion of the tumor is fibrous, with spindle-shaped tumor cells. There are no giant cells, and moderate numbers of small blood vessels are present.

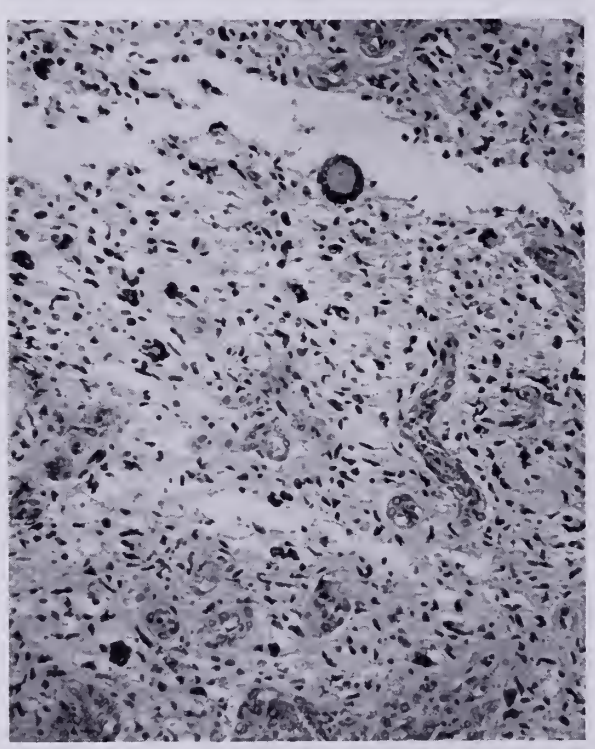


Figure 2. Photomicrograph of brain showing astrocytoma, grade IV. The tumor had a varied histologic appearance. In this area, a large giant cell is seen as well as several blood vessels.

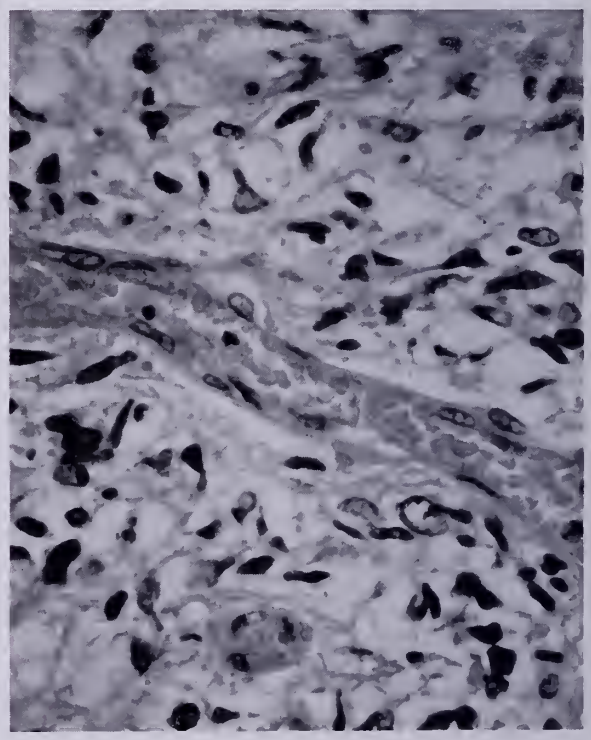


Figure 4. Photomicrograph (high power) of brain, showing astrocytoma, grade IV. The tumor cells are pleomorphic and contain hyperchromatic nuclei.

are now using the classification developed by Kernohan and his associates at the Mayo Clinic, which groups these lesions together under the general heading of astrocytomas.

Astrocytomas are more common in the cerebellum and brain stem in children of our patient's age, but approximately 15 per cent of them are located in the cerebral hemispheres. Such lesions are frequently associated with headache, nausea and vomiting, with a staggering gait and with awkwardness. A choked disc is present in approximately two-thirds of the cases. Convulsions and head-tilting are occasionally seen.

The relationship of the head injury to the development of acute symptoms is problematical. It would not be unreasonable to assume, however, that the head injury, although slight, may have precipitated additional hemorrhage into the tumor, causing an acute onset of symptoms.

FINAL PATHOLOGIC DIAGNOSES

1. Astrocytoma, grade IV, of the right cerebral hemisphere
2. Cerebral edema, marked
3. Pulmonary edema.

Dr. M. E. Alberts: The entrance complaints of this patient present a very common problem. We are often called upon to diagnose and treat children whose symptoms are vomiting, diarrhea, abdominal pain and headache, and there are a vast number of clinical entities for us to consider—including tonsillitis, strep throat, otitis media, urinary-tract infection, gastroenteritis of any type and meningitis.

The clinical course of this child added further clues. She lapsed into a stupor, indicating more specifically a central nervous system involvement. Dr. Robert Hayne certainly did a fine job of presenting a differential diagnosis, wherein he considered not only infectious states but also blood dyscrasias, new growths and congenital defects. Our awareness of new growths of the central nervous system in children has been renewed by our study of this case.

State University of Iowa College of Medicine

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 48-YEAR-OLD WHITE married woman was admitted to the Surgical Service with a chief complaint of "growth on the liver." Her present illness apparently had begun six months before admission, when she noted tiredness and weight loss. Off and on for three months, she had felt a "lump" in her abdomen. By the time of admission, she had lost 25 pounds, although her appetite had remained good. She performed all her household duties as a farm wife, including the care of five children, until the day of admission. Two days earlier, she had become nauseated and had vomited several times. Occasionally, she experienced a dull, aching, epigastric distress and bloating of the abdomen. The next day, the nausea increased, and she vomited 12 times. The vomitus consisted of clear liquid material, without blood. She was seen by her family physician and referred to this hospital.

Her husband stated that her skin had "looked yellow" on the day before her admission. There was no previous history of jaundice, abdominal pain, exposure to hepatotoxic agents, alcoholism, or of family or neighborhood jaundice. Bowel movements were normal. The review of systems was not remarkable, except for intermittent vaginal spotting of three weeks' duration. This had not occurred previously.

Physical examination revealed a thin woman who was alert and cooperative. She did not appear to be in acute distress. Her skin was warm, moist and not icteric. There was no significant lymphadenopathy. The sclerae were not icteric, and the fundi were normal. The lungs were clear, and the heart was normal. The blood pressure was 104/90 mm. Hg. The pulse rate was 120 beats per minute. Respirations were 23 per minute. The abdomen was distended by fluid. The liver extended down 4-6 fingerbreadths below the right costal margin and moved with respiration. The edge was sharp and smooth. One observer felt a nodule in the epigastric area, and another stated that the organ was tender. The spleen and kidneys were not palpable. Pelvic examination revealed a polyp protruding from the cervix. The remainder of the examination, including the rectal and the neurologic, was normal.

The EKG was normal. A blood Wassermann was negative. Roentgenograms of the chest, abdomen and upper intestinal tract were normal. On admission, the hemoglobin was recorded as 12 Gm./100 ml., but on the next day and subsequently, it was 18 Gm./100 ml. The red blood cell count was 6,280,000/cu. mm., and the white blood cell counts ranged from 23,000/cu. mm. to 42,000/cu. mm. The differential counts showed a shift to the left. The platelet count was 362,000/cu. mm. The hematocrit

was 63 per cent. Several urinalyses showed a specific gravity range from 1.014 to 1.023, albumin ranging from a trace to 2+, a trace of bilirubin, and occasional red and white blood cells.

The total serum proteins (TSP) were 6.1 Gm./100 ml., with an albumin of 3.6 and a globulin of 2.5. The alkaline phosphatase was 3.8 Bodansky units. The prothrombin time was 23.2 seconds, with a control of 14. The zinc turbidity was 6.5 units, and the thymol turbidity was 1.5 units. The one hour serum bilirubin rose from 5.8 to 11.2 mg., and the 30 hour serum bilirubin from 11.8 to 21.6 mg.

The blood urea nitrogen rose from 50 to 118 mg./100 ml., the creatinine increased from 2.1 to 6.6 mg./100 ml. The serum sodium fell from 135 to 107 mEq./100 ml., and the serum chlorides from 116 to 88 mEq./100 ml. The potassium ranged from 5.8 to 7.5 mEq. The CO_2 fell from 22.6 to 15.6 mEq./100 ml.

The patient's condition rapidly deteriorated following her admission, and after four days, she was comatose. At that point, she was transferred to the Medical Service, where she was treated with hypertonic glucose, potassium chloride and tetracycline intravenously. The next day, positive Babinski and Hoffman signs were noted bilaterally. No other abnormal neurolgic signs were detected. A lumbar puncture revealed an opening pressure of 230 mm. H_2O; a closing pressure of 150 mm. H_2O; clear fluid; 40 mg. per cent protein; 76 mg. per cent glucose; and 141 mEq./L. of chloride. A culture of the fluid was negative. A bone marrow aspiration was reported as revealing hyperplastic marrow. Examination of ascitic fluid by the Cytology Laboratory and the Department of Pathology failed to reveal abnormal cells. A culture of the ascitic fluid was negative. An otolaryngologist made a diagnosis of excoriation of the left aural canal, and "no middle-ear infection." A neurologist diagnosed "terminal disease" and hepatic coma.

Nine days after her admission, the patient's blood pressure became unobtainable, and she was pronounced dead at 2:35 p.m. At no time during her hospitalization had her temperature exceeded 99.2°F.

SUMMARY OF CLINICAL DISCUSSION

Dr. William B. Bean, Internal Medicine: Dr. Seebohm has asked me to discuss the case in hand today as an unknown. I have gone over the protocol numerous times, and it is still an unknown as far as I am concerned.

Essentially, we have the problem of the differential diagnosis of jaundice. At CPC's we have an advantage over clinicians in that we know, at least, that the patient has died and that an autopsy has been done. The patient's probable death must have been apparent fairly early in her fulminating hospital course. I think that there is no situation more conducive to clinical humility than that of being required to make a differential diagnosis of jaundice. Unless we have the whole story from the very beginning, our laboratory tests may confuse us. What begins as a classical example of the parenchymal type of jaundice with all the functions out of kilter, after a period of time may be associated with swelling of the liver to the extent that bile can no longer get out. One has the added laboratory tests of obstructive jaundice. Likewise, what begins as obstructive jaundice may ultimately interfere with many liver functions, so that laboratory tests late in the illness may give signs of parenchymal damage. From the point of view of practical medicine, the differential diagnosis of jaundice comes down to a very simple division into surgical or medical jaundice. Does the patient have a disease which might be relieved or cured by the surgeon, and without surgery would either leave the patient a chronic invalid or perhaps even cause his death; or is it the strictly non-surgical type of jaundice in a patient for whom surgery would be disastrous, or would at least add an unhappy and unnecessary complication to an illness already bad enough?

It is a bit difficult to follow the course of this woman's case by the protocol, for you must go flipping back and forth between page one and page two. There are the results of detailed laboratory studies, and I think the simplest thing will be to review briefly the story of her illness prior to her hospitalization, and then try to analyze the clinical and laboratory findings that were made here.

To begin with, the woman was 48 years of age. To most of you it may seem that she was middle-aged or elderly. By most standards, however, she wasn't old, though she was no longer young. She had an illness that had begun insidiously. There was no day or hour—perhaps there was no week—to which she could point and say "that was when I became ill." Her symptoms were similarly nonspecific. She began to feel tired, listless and weak, and she lost weight. Then she felt a lump in her abdomen. The protocol says that lump was perceptible "off and on," but whether the tumor was paroxysmal or whether she felt her belly only at intervals, I don't know. I am inclined to think that the mass was there all of the time, but that she was only occasionally aware of it.

She managed to continue living the life of a lusty farm wife, taking care of her children—of whom there were five—and otherwise performing the tasks expected of her until rather abruptly she became nauseated and vomited. She had some dull epigastric distress and bloating of the abdomen. The next day after this abrupt deterioration in her health, her nausea increased and she vomited 12 times. Paraphrasing Milton, we might say, "From morn till noon she puked, from noon till dewy eve, a summer's day." Hers was a long and hectic siege. She was throwing up everything she ate and then some, but the vomitus contained no blood. She saw her doctor, and he sent her to this

hospital. Her husband commented that she had appeared "yellow" the day before.

When the patient was admitted to the Surgical Service, she was not found to be icteric. Whether this examination was made by day or by night isn't stated. There are important negative elements in the history here. The woman had not previously been jaundiced. She had no abdominal pains of any moment. No one knew of her having been exposed to any medicines or poisons that might have damaged her liver. She did not drink. There had been no known outbreaks of hepatitis in the community. During the three-week period before she came to the hospital, she had had intermittent vaginal spotting. In a woman of 48, you might assume that this phenomenon marked the beginning of menopausal irregularities or something of that sort, rather than the onset of any disease. But it is well to note that in certain liver diseases, particularly where the parenchyma is not functioning properly, there may be rather extreme menorrhagia and sometimes metrorrhagia. After cirrhosis has continued for a while, one is usually confronted with amenorrhea. This, if I may use the term, may be nothing more than a red herring. I think it had no particular significance.

This woman was not jaundiced. She had a big liver, and she did not have any of the stigmata which we commonly associate with disease of the parenchyma of the liver. It is not reported that she had liver palms or vascular spiders, though they undoubtedly were looked for. Her blood pressure was low, with a low pulse pressure. Whether this represented anything more than the debility of her illness, I don't know. The diastolic pressure of 90 and systolic of 104 don't suggest anything important to me. The pulse rate was 120. At no time during her hospital course did she have any substantial fever. This is of interest to us as we try to explain her difficulty. She was breathing rapidly. The most striking feature of the physical findings was that her liver was big and, apparently, smooth. The observers disagreed about its tenderness, and if it was nodular, the nodule was of a variety that only one person could feel.

We have many difficulties when dealing with physical signs. If someone feels an organ or a mass, one must conclude that a mass exists, even though 20 other people fail to locate it. It is very difficult, in many instances, for an examiner to be sure what he is palpating underneath the surface of the abdomen, particularly if the patient is fat or has very thick muscles.

Thus, though we can say that the liver was definitely enlarged and that it did not seem grossly nodular, we must note that it may have been somewhat irregular and that one person did feel a nodule. The pelvic examination was remarkable only for the cryptic comment that a polyp was protruding from the cervix. Presumably the examiners thought that finding to be unimportant in this woman's illness—not a malignant tumor, but rather a presumably benign polyp. As a general rule, pelvic tumors do not metastasize exclusively to the liver without also going to many other places. Thus, the usual story is that carcinoma of the cervix doesn't go so fast, so much or so often to the liver as do certain other carcinomas. Like other medical rules, this one is not inviolable, of course.

Dr Carl L. Gillies, Radiology: The x-rays, as the protocol says, were negative. The routine chest film was entirely negative; the gastrointestinal tract film was negative; and the flat films of the abdomen showed no urinary or biliary calculi. There was no evidence of intestinal obstruction. The liver shadow was not particularly enlarged.

Dr. J. A. Clifton, Internal Medicine: What about the spleen, Dr. Gillies?

Dr. Gillies: It was not enlarged.

Dr. Clifton: Were there any indications of ascites?

Dr. Gillies: No.

Dr. Bean: The film in question was taken on the day after her arrival at the hospital, and at that time she had massive ascites.

Nothing is said in the protocol about edema of the lower extremities. Was there peripheral edema of any consequence?

Dr. Paul M. Seebohm, Internal Medicine: No edema.

Dr. Bean: The electrocardiogram was normal, and the blood Wassermann test was normal.

The patient's condition got worse, and the surgeons called for help. After four days, the patient's condition had deteriorated so badly that they decided to send her to the Department of Medicine. Rather than the beginning, that episode was the continuation of her downfall. She lapsed into coma, and she developed neurologic signs suggestive of some disorder in the pyramidal system, but no focal signs. She had no palsy, but she had Babinski and Hoffman signs on both sides. She was given heroic doses of hypertonic glucose.

I was somewhat mystified by the potassium chloride, for her potassium was always either abnormally high or toward the upper limits of normal. I don't know why she was given potassium unless it was administered before receipt of the laboratory report.

Spinal fluid tests and lumbar puncture results were not particularly significant. The fluid was sterile; no cells were described. The bone marrow was hyperplastic. From the ascitic fluid, there was no indication of the presence of a tumor, or at least none was described.

At the very end of the protocol, we find the only cheerful note in the whole document—an otolaryngologist's finding of "excoriation of the left aural canal and no middle-ear infection." There is a rather noncommittal note from the neurologist. It seems that he quite properly capped the general gloom and confusion when he declared that this patient had "coma" and "terminal disease." His

was an absolutely precise prognostic observation, for the next thing we see is that the patient died, six days after her transfer to the Department of Medicine.

On reexamining the laboratory data, there are two observations that I should like to make. We are told that on one day the hemoglobin was 12 Gm., and that on the next day it was 18.4 Gm. I believe that either one or the other of those reports must have been erroneous, and I am going to say that the 12 is wrong and the 18 is right. The evidence that supports my choice consists of the facts that the red count was between six and seven million, and that the hematocrits taken along with the two hemoglobin measurements were, respectively, 63 and 65. Now, it is most unlikely that dehydration could have produced so much hemoconcentration, particularly since there was fairly brisk fluid therapy later in the patient's disease. We have polycythemia; we don't have a decrease and perhaps we even have an increase in the number of platelets; and we have a white count which is elevated and shifted to the left. This picture is consistent with an infection or a leukemoid reaction, or as I believe, with a very over-active bone marrow such as is found with polycythemia vera.

So I am impressed with the first batch of laboratory figures, ones which turn me in the direction of polycythemia. Now we encounter some of the complexities. The patient's kidneys shut down about three days before she died, or at least her urine output dwindled on the first of those days to 85 cc. and no further recordings were made. Until then, she had been able to concentrate pretty well. On several occasions, she had a little albumin, but not very much. This finding is a little disconcerting, for it contraindicates what I intend proposing as a possible explanation of her difficulty When there is a mechanical obstruction to the outflow of blood from the kidneys, and certainly in renal-vein thrombosis, the clinical pattern is that of nephrosis, and severe nephrosis usually is associated with a 4+ albuminuria. On one occasion, there was blood in the urine, and what that meant, I don't know. It was gross blood. On other occasions, she had microscopic hematuria together with white cell casts and other material in the sediment. Thus, from the urinary studies alone, we can say that there was something wrong with her kidneys. She had hematuria, and then her kidneys shut down.

Now, these extensive laboratory studies of her blood electrolytes and her blood urea nitrogen, and towards the end the conspicuous increase in the two components of bilirubin, show deteriorating functions. Either the patient was not getting enough sodium or was losing sodium. Her blood sodium went down consistently, despite her being given sodium lactate on at least two occasions. The potassium was always above normal or at the upper limit of normal, and for that reason, as I have said, I am mystified at the administration of potassium chloride. The chloride paralleled sodium in the steady march downward, and the CO_2 moved in the direction of acidosis. When she came in, she had had a blood urea nitrogen considerably above normal. It more than doubled during her stay in the hospital. It was elevated out of proportion to the elevation in creatinine.

Her globulin was not elevated, and her albumin wasn't particularly low. The alkaline phosphatase was normal. Both components of the bilirubin during the last two or three days increased conspicuously, so that she must have been deeply jaundiced before she died. The test for general hepatic cell function was not conspicuously off; the prothrombin time was somewhat off. The evidence that she had parenchymal disease is not very strong from this information. Various efforts were made to adjust her fluids and electrolytes. Terminally, she was unable to eat, and she was in coma. Consequently, some of her fluids and some of her medicine had to be given parenterally rather than orally.

It is the duty of every CPC discussant to put everything into one basket, and I shall do that job as well as I can. I believe that this patient had polycythemia vera.

We know that people with polycythemia vera have a notable tendency to intravascular clotting and thrombosis, in addition to hemorrhage. The course of polycythemia is associated with phlebitis, and occasionally with pulmonary embolism and infarcts. For the purposes of my argument, I suggest that in the region of the hepatic vein and perhaps the inferior vena cava, a thrombus began to form. It propagated itself downward so that it came to the level of the renal veins. I think she had a Chiari's syndrome, with thrombosis of the hepatic vein and enlargement of the liver on that basis, as well as the development of massive ascites. Perhaps one or both of her renal veins were thrombosed.

Now there are some discordant notes. She didn't develop peripheral edema, and she didn't have nephrosis. She didn't excrete very much albumin, and she didn't develop hypoalbuminuria. She had a progressive renal failure which went along at a very, very fast clip. Most people with severe hepatic disease plus underlying renal disease don't accumulate blood urea nitrogen this fast, for the liver can't perform its function of deaminating amino acids and making blood urea. At least early in hepatic disease of a severe variety, there is a fall rather than a rise in blood urea nitrogen. At that time, the ammonia nitrogen and the amino acid nitrogen may be elevated. If we try to hook all these things together, we must conclude that she had a thrombosis of the hepatic vein and may have had obstructions to the inferior vena cava, damaging her kidneys. As a result, there were the elevated BUN and hematuria. Now I realize that it is unlikely for anyone to have Chiari's syndrome together with a renal thrombosis. Those are two quite rare diseases. Nevertheless, I suggest that

this patient had primary polycythemia, with large intervascular thromboses of the hepatic veins, and possibly of the renal veins too.

Some of our forebears established the aphorism that one makes diagnoses of rare diseases rarely. Thus, I shouldn't neglect saying that there are numerous other possibilities. The patient may very well have had either a latent or an unrecognized cirrhosis of the post hepatitic variety with failure of her liver developing in a fulminating way in association with much necrosis and what we used to call "acute yellow atrophy." To reach that diagnosis, we would need to assume that she had unrecognized hepatitis in the past, that it went on to scar-formation and cirrhosis, and that she developed portal hypertension.

If portal hypertension develops very fast and if the belly becomes extremely tense, there is increased pressure on the inferior vena cava and an interference with renal function. Most persons who develop portal hypertension, with very large veins over the abdomen, don't do so because of any connection between the portal system and the upper and lower hemorrhoidal and inferior epigastric veins, but because they have a partial functional obstruction of the inferior vena cava. The blood that comes up over the belly is largely coming from the legs via the femoral veins. We have demostrated this in some people by doing differential glucose-tolerance tests and showing that there was no very remarkable increase of glucose in the inferior abdominal veins after a large retention enema of glucose had been given. The glucose went no higher in those veins than it did in the antecubital veins. That was not always true, but it is a point to keep in mind.

It is possible that our patient had a hepatoma—a primary tumor arising without cirrhosis. Most hepatomas in this country have been found as sequels to cirrhosis. Metastatic carcinomas can do tricks very much like this, but I think such a diagnosis is unlikely in the light of all the negative x-ray evidence and in the absence of any clue from the history. Possibly she had hepatic abscess, amebic or something else, with a high white count, but the absence of fever is somewhat against it. She developed central nervous system symptoms probably associated with hepatic coma and "toxemia," and these may have been *upon* rather than *from* a metastatic abscess or a metastatic tumor of the brain. These are possibilities. She obviously had severe disease of the liver, in which I think the mechanical factor was the major one.

I conclude that this woman had a polycythemia vera, with thrombosis obstructing the outflow of blood from the liver and probably from the kidneys, and that she died as a consequence of fulminating deterioration of hepatic and renal function. I know that she died of liver disease and that she died with renal failure, but the cause may have been a number of other things such as a postnecrotic variety of necrosis, hepatoma, or even a benign tumor that took up a vast share of her liver.

Dr. Clifton: Dr. Bean, is the diagnosis of the Chiari's syndrome compatible with the fact that the patient's present illness began six months before admission, when she noted tiredness, weight loss and a lump in the abdomen? And then what about the absence of abdominal pain and tenderness of the liver, and what was described as a sharp and smooth liver edge? Didn't those findings worry you?

Dr. Bean: Well, those things worried me, but I didn't fret about them because a lot of other things worried me more. Chiari's syndrome can last as long as a year, but it is usually an acute condition, for there is usually a complete thrombosis of the hepatic veins. Tenderness and pain are likely to occur, but they are not necessary, or at least they are no more than one can account for on the basis of massive ascites stretching the belly. As for the sharp and smooth liver edge, I don't know. We shall probably have an explanation for that finding.

Dr. Seebohm: You chose to assume that the polycythemia came first and the liver disorder second. Do you think that polycythemia ever follows chronic liver disorders, and if so, by what mechanism does it develop?

Dr. Bean: Chronic liver disease does not remove the possibility of the patient's developing polycythemia, but polycythemia is not a part of the picture in chronic liver disease. Ordinarily, chronic liver disease is more likely to be associated with any of several varieties of anemia. We don't know the cause of the vera variety of polycythemia, but we do know that all kinds of congenital shunts in the heart and lungs may produce secondary polycythemia, and similarly, any kind of chronic disease in the lungs which keeps the air from getting in or out properly may produce chronic polycythemia. But it isn't a part of the picture of liver disease. It is the other way around. Now I'm not sure. Certainly, a person with cirrhosis or severe liver disease could develop polycythemia, but it would then be independent in so far as I know.

Dr. G. R. Zimmerman, Pathology: This woman did have polycythemia vera and Chiari's syndrome. There were several of the anatomic changes of polycythemia that one usually finds at postmortem in such cases, such as the deep purple-red color of the solid viscera. The bone marrow was hyperplastic, and as is usual in the early phases of polycythemia vera, the proportions of the myeloid and erythroid elements had not been notably disturbed. The spleen was moderately enlarged, mostly because of congestion. There was no extra-medullary hemaporiesis such as is often seen in polycythemia vera. There were many pulmonary infarcts, the largest of them measuring about $3 \times 2 \times 2$ cm. A photomicrograph included a small pulmonary artery occluded by organizing thrombus. It was several millimeters in diameter, indicating that it was near the periphery of the lung, as the throm-

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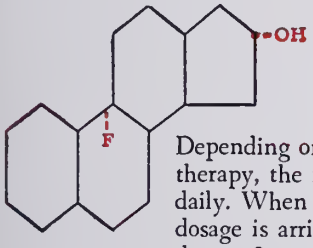
1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

boses and infarcts all were. Around the artery was hemorrhagic and infarcted lung tissue.

The liver was enlarged to 1,600 Gm., a moderate degree of enlargement for a 135-pound woman. The right lobe was smaller than the left (the reverse of normal), suggesting considerable damage to the right lobe, with relatively more compensatory hyperplasia of the left lobe. The liver was olive-green, with yellow mottling. There were thrombi in practically all of the hepatic veins. The abdomen contained 6,500 cc. of ascitic fluid.

The liver edge was fairly sharp, and the liver was bile-stained. The cut surface showed the thrombi in the hepatic veins. The yellow areas were necrotic. The thrombi were confined to the hepatic veins and did not extend into the vena cava and renal veins.

A photomicrograph of a viable part of the liver showed inspissated bile in the bile canaliculi. A hepatic vein was occluded by thrombus which was undergoing organization. I should estimate that the thrombus was about two weeks old. Many other thrombi were fresh, and still other organized thrombi were easily six months old, judging from their dense collagen. Another photomicrograph showed one of the yellow necrotic areas. Only the portal-space structures were viable. The parenchyma had undergone coagulation necrosis, in contrast with the liquefaction necrosis more commonly seen in the liver. Coagulation necrosis, however, is characteristic of early infarction. A fourth photomicrograph was typical of most of the liver. About half of each liver lobule was shown to be necrotic, and the peripheries of the lobules were viable. The sixth photomicrograph, of the kidney, showed some evidence of shock or lower nephron nephrosis, but the changes were so mild that they could not definitely be distinguished from autolysis of the tubular epithelium. In each square centimeter of the section, there were dozens of spherical, light-brown crystals in the lumens of the tubules. Some had concentric laminations, and others had radial striations in addition. These were described by Councilman in fatal yellow fever, and they have also been described in other fatal diseases in which there are massive hepatic necroses. The exact significance of the chemical composition of these crystals is unknown. There was another type of colorless, angular, tubular crystals that also are of unknown composition.

A slide of endometrium showed a relatively normal basilar layer and a tremendously thickened and highly vascular superficial layer in which there were relatively few and small glands. A higher magnification showed that the thickening was due to pseudodecidual reaction of the stroma. This is a normal reaction in pregnancy, but in this woman no pregnancy was found. An early uterine pregnancy, of course, may have been missed by the naked eye, but in early pregnancy the decidual reaction is ordinarily focal and confined to the implantation site, and in this case it was diffuse. The glandular changes of pregnancy were missing, and there was no corpus luteum. There were no breast changes. Thus, this endometrial stromal change must remain unexplained. It was not the usual alteration seen in patients with failing liver function—i.e., with loss of ability to inactivate estrogens. On the contrary, this endometrium showed a progesterone effect, which, so far as I know, has not been attributed to liver failure.

A slide that was representative of all the bone-marrow sections showed the marrow to be very hyperplastic. Some authors have reported sclerosis of the capilliaries of the bone marrow in polycythemia vera, and indeed they have attributed the disease to bone-marrow hypoxia resulting from capillary sclerosis and leading to over-stimulation of the marrow. There was no capillary sclerosis in this case or in many other cases of polycythemia vera which have been reported by investigators having this feature in mind.

Finally, I must mention the endocervical polyp. It was of no import.

In summary, this patient had polycythemia vera and Chiari's syndrome. Chiari's syndrome is a relatively rare disease, and when it does occur, it is frequently associated with polycythemia. It may also be due to infection and thrombosis of the hepatic veins, but most often—as in this case—the thrombi are bland. That is to say, there is no primary inflammation of the hepatic veins. The multiple pulmonary arterial thromboses and infarctions were a direct complication of the polycythemia.

Dr. Clifton: Were there any anatomical or physiological peculiarities of the hepatic veins that lend themselves to easy thrombosis?

Dr. Zimmerman: In polycythemia, or in general?

Dr. Clifton: Well, in either or both.

Dr. Zimmerman: I think I can pretty comfortably say that there were not. The proof is that the condition is extremely rare, even for example in very severe congestive heart failure.

Dr. Emory D. Warner, Pathology: Do you have a blood count that was taken on this patient during a previous hospitalization, before she was brought here?

Dr. Seebohm: There had been no previous admissions. A total of five hemoglobin determinations were made. Three of those were 18 Gm., one was

Attend the
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Des Moines

17 Gm., and then there was the 12 Gm. on admission. I think we established that the patient did have polycythemia after being admitted to the hospital, but whether or not she had it before admission is not certain.

Dr. Henry Hamilton, Internal Medicine: Why was potassium given every time the patient received fluid?

Dr. Clifton: The patient was in hepatic coma during the time that she was on the Medical Service, and the house staff was following her fluid and electrolyte balance as carefully as possible. In patients in hepatic coma, electrolyte concentrations may change precipitously, and hypopotassemia is much more frequently associated with hepatic coma than is hyperpotassemia. This tendency is enhanced by such large quantities of glucose as this patient was getting. I feel sure that this was why she received added potassium.

SUMMARY OF NECROPSY FINDINGS

Apparently as a complication of polycythemia vera, this patient had thrombosis of hepatic veins and pulmonary arteries. The hepatic-vein thrombi occluded almost every central vein and many of the larger hepatic veins. The thrombi varied in size; some were recanalized. There was resultant necrosis of hepatic parenchyma, also of variable duration. There were ascites and jaundice. The pulmonary-artery thrombi in many of the peripheral arteries were also of different ages. There were multiple peripheral pulmonary infarcts.

Many of the organs had the purplish-red color characteristically seen in polycythemia vera. The bone marrow was hyperplastic; both myeloid and erythroid elements were increased.

A highly-developed pseudodecidual reaction of the endometrial stroma was an inadequately explained finding.

Death was attributed to hepatic failure.

ANATOMIC DIAGNOSES

1. Polycythemia vera (clinical)
2. Thrombosis of hepatic veins with extensive hepatic necrosis (Chiari's syndrome)
3. Thrombosis, multiple, of small pulmonary arteries, with peripheral pulmonary infarctions
4. Ascites
5. Jaundice
6. Pseudodecidual reaction of endometrial stroma.

Possible Cause of Schizophrenia

A possible chemical cause of schizophrenia has been suggested by a Harvard Medical School researcher. Dr. Samuel Bogoch has found that adult schizophrenics have considerably less neuraminic acid—a component of the brain's gray matter—in the spinal cord fluid than do non-schizophrenics. In fact, the levels of neuraminic acid in the cerebrospinal fluid of adult schizophrenics is "comparable only to values found in some children under seven years of age."

The low values in adult schizophrenic patients may indicate a form of chemical immaturity of the nervous system, Dr. Bogoch theorizes. This failure in chemical maturity would correlate well with clinical evidence of a psychological infantilism in the schizophrenic. Writing in the August, 1958, AMA ARCHIVES OF NEUROLOGY AND PSYCHIATRY,* he said that there have been many attempts to show some chemical cause of schizophrenia through the study of blood and urine, but there has been no definite demonstration of a chemical disorder in the central nervous system proper. Thus his findings, he said, "present an important new area for further investigation." One thing to be learned is the meaning of a lowered value of neuraminic acid in the cerebrospinal fluid.

From determinations of the neuraminic acid concentrations in the cerebrospinal fluids of 29 adult schizophrenic patients, 72 children under seven years of age, 29 children between the ages of seven and 15, and 65 non-schizophrenic adults, he found that low values in adults correlated well with the diagnosis of schizophrenia, whether an acute first attack or a chronic process of more than 10 years' duration.

The exact function of neuraminic acid in the nervous system is not definitely known, Dr. Bogoch said. It appears to play some role in the functions of the "blood brain barrier" which helps maintain the special environment of the brain. He theorized that the actual causal agents of schizophrenia may then be normal substances in the body which an improperly operating barrier permits to come into contact with the brain. Thus, the inadequately developed barrier system may constitute a "specific vulnerability to psychosis."

Dr. Bogoch did not claim that his studies are in any way conclusive or definitive. Tests are now underway, he reported, to determine the effect of administering neuraminic acid to psychotic patients.

Dr. Bogoch is associated with the neurochemical research laboratory of the Massachusetts Mental Health Center and the Department of Psychiatry at the Harvard Medical School, Boston.

* Bogoch, S.: Cerebrospinal fluid neuraminic acid deficiency in schizophrenia. AMA ARCH. NEUROL. & PSYCHIAT., 80:221-227, (Aug.) 1958.

Editorials

PRESS RELEASES ABOUT PATIENTS

In response to an inquiry from a member of the Society, Mr. Robert B. Throckmorton, a Des Moines attorney, has prepared an opinion on doctors' press releases about patients which should interest all physicians in the state. Since he said he postponed his reply until after attending the AMA Legal Conference in Chicago last May, where he had opportunities to discuss the matter with numerous authorities, his statements can be taken as reflecting a consensus.

The officers of the Iowa State Medical Society recognize that physicians must exercise care in deciding what information they should release about patients whom they are treating, but they urge all of them to cooperate with the press as fully as possible. Mr. Throckmorton, they feel sure, shares that attitude, and what he has said is to be interpreted as facilitating rather than discouraging such cooperation.

At the start of his opinion, he has pointed out that the topic is rather fully and accurately covered in the "Code of Cooperation . . . With Newspapers and Radio and Television Broadcasters," copies of which have been distributed by the Society to all of its member doctors and to all of the hospitals and news agencies in the state. In particular, he refers physicians to the page of that leaflet which bears the caption "Doctors-Hospitals." The remainder of his opinion is as follows:

"The Iowa Supreme Court has now recognized a cause of action for the wrongful invasion of a person's privacy. In the case of *Bremmer* vs. *Journal-Tribune Publishing Company*, 247 Iowa 817, 76 NW 2d 762 (1956), the Court said, 'A person who unreasonably and seriously interferes with another's interest in not having his affairs known to others or his likeness exhibited to the public is liable to the other.' This liability is tempered, however, if the invasion of the privacy is 'privileged' for a legitimate public interest. In other words, if a person becomes the subject of widespread public interest, he may no longer complain if his otherwise private affairs are published.

"A physician may, therefore, be liable for damages if he discloses too much information about the condition of a patient. This is essentially a matter of judgment and good taste. Under the law, he may reveal more detailed information concerning a patient whose condition is of widespread interest than one in whom there is no reason for unusual interest by the public. If at all possible, the question of publicity should be discussed with the patient or members of his family, as these attitudes will indicate to the doctor a safe, practical limit for publicity in a specific case.

"Apart from these considerations of possible personal liability, the physician is, of course, governed by other considerations. Section 9 of the Principles of Medical Ethics of the American Medical Association provides as follows:

> A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

Section 147.56 [of the Code of Iowa] defines as 'unprofessional conduct' the 'willful betrayal of a professional secret.' Violation of these provisions might, of course, result in disciplinary action.

"It is obvious, in any case where professional secrets are willfully betrayed or where a physician through poor judgment discloses too much personal information to news sources, that he may be subject to disciplinary action and may be liable in an action for damages. [*But*] *it is also apparent that a physician acting in good faith and exercising sound judgment has a reasonably wide degree of latitude in disclosing information to news sources without incurring any serious risk. . . . All things considered, the prudent course to follow is one that is in keeping with the principles of the 'Code of Cooperation' whereby the physician limits his comments to generalities concerning the patient's condition unless he has authorization from the patient to be more detailed in his information.*

"It is my understanding that the Committee on Automotive Safety of the Iowa State Medical Society is now working with the Iowa Safety Commissioner to determine the type of information that should be given by physicians to the Department of Public Safety. These reports, like the current form of accident report, are confidential, which gives the physician greater latitude in disclosing information. At this time I do not believe we should express any further opinion as to the reports to the Department of Public Safety until the Iowa State Medical Society has formally worked out this program with the Safety Commissioner."

BLUE SHIELD PRAISES ISMS PLAN

The August issue of NEWSLETTER, a pamphlet issued by the Chicago headquarters of Blue Shield Medical Care Plans, contains high praise for the scheme by which the Iowa State Medical Society will facilitate exchanges of views between officers and members during the coming months. "The ultimate in good communications," the editors declared, "will be achieved by the ISMS . . . when it

inaugurates a series of meetings throughout the state at which officers of the Society and Blue Shield will report on current problems of interest to physicians."

The paper then quoted the following passage from Dr. Walter D. Abbot's President's Page in the MAY JOURNAL: "These meetings are intended to supplement the JOURNAL, the news bulletins and other communications, and the personal contacts of the Society's field representatives and those of Blue Shield, in welding physicians into an effective force. . . . The Society is receiving good cooperation from a majority of its members, but 'good' cooperation from a 'majority' is not enough. It must have *optimum support* if it is to cope successfully with the serious problems that face organized medicine. To secure that support, there can be no better method than that of letting key men—doctors of medicine particularly active in State Society affairs—go into all parts of the state to talk with rather small groups of physicians. And the officers and committee chairmen of the State Society and Blue Shield will go to those meetings to listen as well as to speak. Thus, individual members will not only receive information, but will be given a hearing."

DOCTORS SHOULD ENTER POLITICS

In his address to the graduating class of Jefferson Medical College, a few weeks ago, Dr. Walter H. Judd, representative in Congress from Minnesota, urged other doctors to take an active role in public affairs.

First, he said that by doing so, physicians can help to insure the preservation of free medicine. "What doctors are going to be permitted to do as medical men," he declared, "depends upon what they do as citizens."

Dr. Judd reminded his audience, which consisted not only of the class about to be graduated but also of a great many practicing physicians, that doctors are also citizens, taxpayers and parents. "All of us are trustees of a great and noble heritage of freedom," he said, "trustees of a political and economic order which made it possible for those of you who came from the humblest circumstances, as I did, to get the expensive education which we never would have dreamed of obtaining in most of the countries of the world. Our obligations as citizens must influence our thinking and our conduct as doctors."

Thus, he continued, more doctors must be willing to become candidates for public office. Both patriotism and good sense require that *all* citizens, no matter how specialized their training, must be willing to go into public service in peacetime, just as their sons are called upon to sacrifice their careers to go into the armed services during wars.

He appealed to his fellow doctors for help: "This world patient is too sick to be cured without the intelligent and dedicated effort of all of us. It particularly needs the leadership of men and women who have the qualities of mind and heart of the good physician."

Dr. Judd has been a member of Congress since 1942.

NARCISSUS AND THE AMERICAN PHYSICIAN

In Greek mythology, Narcissus was an individual who had as his principal characteristic an overfondness for gazing into reflecting surfaces such as pools of water. Nowadays, the term *narcissism* is used to identify a type of abnormality that is of interest chiefly to psychiatrists.

Doubtless there are only a few doctors whose narcissism requires psychotherapy, but there seem to be plenty of them who look at themselves in mirrors, rather than let internists or generalists give them thorough physical examinations.

The evidence discovered by one set of investigators reveals that from coronary thrombosis the mortality among physicians is nearly twice that among the general population. Another recent study has shown that the death rate from the heart diseases as a group is 3.2 per cent higher among doctors than among white males generally, and that between the ages of 60 and 64 years, over 20 per cent more doctors than other males die of heart disease.

At last June's meeting of the AMA in San Francisco, the chairman of the Section on General Practice, Dr. Charles E. McArthur, of Olympia, Washington reviewed the results of physical examinations which have been given to physicians at the last three AMA meetings. Of the 3,228 EKG's made at those gatherings, 18 per cent produced either definitely abnormal or borderline findings. Of the 2,749 chest photofluorograms, 18 per cent showed suspected or definite abnormalities such as tuberculosis, chest neoplasms and cardiovascular anomalies.

Dr. McArthur reported further that in recent investigations mortalities from heart disease among general practitioners have not only exceeded those among the generality of men but—perhaps significantly—have been more numerous than those among medical specialists. He then made a guess at the reason. "A physician in general practice," he said, "may be in a small community where he hesitates to consult a local colleague. He therefore must conceal his illness and camouflage his fatigue."

Most of us will live longer and render more and better service to our patients if we do something more for the preservation of our own health than merely to give ourselves an occasional critical glance while shaving. The thing to do, of course, is to call upon a colleague once a year for a bit of professional courtesy. For those of us who prefer

to seek examination at the hands of a relative stranger, a half-day's automobile trip shouldn't constitute an insurmountable obstacle. Indeed, the change of scene and few hours' respite could prove beneficial in themselves.

A NEW ANTHELMINTIC

One of the stubborn problems that confront all practitioners—and especially pediatricians—is the pesky pinworm. Its stubborn resistance to extinction is especially embarrassing because it abounds chiefly in the civilized, urban areas of North America and Europe, rather than in the backward areas of the world. Even American physicians and their families have no unusual immunity.

It is therefore welcome information that a new drug, Delvex (dithiazanine iodide—Lilly) is said to be capable of eliminating the four intestinal parasites which are responsible for more than half of the world population's worm infestations. It is the first broad-spectrum anthelmintic for use in the human body. Inasmuch as it has been estimated that more than 800,000,000 human beings harbor intestinal parasites, and that many of those individuals harbor multiple infestations, it is apparent that this health problem has complex sociological and economic effects.

Dithiazanine is now offered as a practical and effective agent for use against whipworm and threadworm. Whipworms alone are responsible for one-sixth of the estimated world total worm-infestations of human beings. The drug has also been found effective against hookworm (Necator americanus). In tests conducted by the drug manufacturer's research staff, egg counts were reduced significantly, and roughly one in three patients was cleared of the parasite. Those apparently cured were usually among the lightly-infected. In addition, the drug is partly effective against the dwarf tapeworm (Hymenolepis nana) and the beef tapeworm (Taenia saginata).

Delvex is a blue polymethane dye (3,3'-diethylthiadicarbocyanine iodide), and is believed to act against the parasites by interfering with certain enzyme systems essential to their existence. The tablets in which the drug is marketed are coated so that the active ingredient passes into the upper bowel before being released. As a result, the drug is usually well-tolerated, and there have been only infrequent, mild and transient side effects. No contraindications to its use have been noted.

In North America, the major need for this drug is in the eradication of the pinworm (Enterobius vermicularis), for it infests more than 18,000,000 people. The manufacturer claims 100 per cent success in eliminating this parasite. The other helminthic infestations are preponderant in the South and Southwest of this country.

It is to be hoped that this new approach will do much to enhance the effectiveness of our attack upon these pests.

AMA CONFERENCE ON AGING

To coordinate medicine's activities in the field of aging, the AMA has called a special planning conference for September 13-14, at the Drake Hotel, Chicago. State medical societies and state departments of public health have been invited to send representatives to meet with the AMA Committee on Aging.

The program will include presentations of the major challenges to the medical profession in the area of aging; opportunities for each participant to discuss these as they relate to the medical society he represents; round-table discussions on the activities of other organizations in the field; and scientific papers. Further information can be secured from the AMA Council on Medical Service.

MAHASKA COUNTY HEALTH SURVEY

The report of the Iowa State College Statistical Laboratory on the survey conducted last year in Mahaska County reveals that over 13 per cent of the county's population are chronically ill, and that more than 12½ per cent of the hospital bills of the residents are paid by the county, the state or a charitable agency.

The study covered the period between July 1, 1956, and June 30, 1957, the sampling included 10 per cent of the total families, and the director of the project was Nr. Norval Wardle, Iowa State College safety specialist.

Of people reporting illness, 78.3 per cent received medical care as outpatients, and 21.5 per cent obtained treatment from the doctor in a hospital. The hospital bills were paid by Blue Cross in 44 per cent of cases; by the patient or by an individual acting for him in 31.1 per cent of the cases; by the county and/or state in 6.9 per cent; and by a voluntary agency in 5.7 per cent. The doctor bills were paid completely by the patient or by his guardian in 82.4 per cent of cases.

The survey indicated that 52 per cent of the patients in Mahaska County's 16 nursing homes are being supported by welfare agencies. Further, it showed that 54.9 per cent of the families surveyed had no health coverage at all.

The groups cooperating in the project included the Iowa State Medical Society, the State Department of Health, Iowa State College, the State University of Iowa, local hospitals and the Mahaska County District Extension Council, and Blue Cross and Blue Shield.

President's Page

OUR WOMAN'S AUXILIARY

MAY I TAKE THIS opportunity to express my admiration for the members of the Women's Auxiliary to the Iowa State Medical Society. They are our loyal supporters, and our dearest and severest critics.

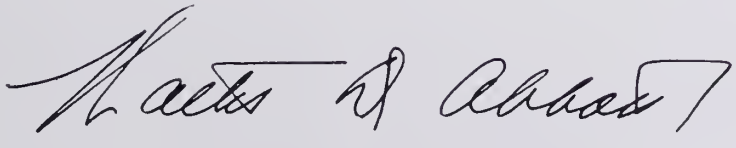
The space at my disposal is far too small to permit my giving you a comprehensive review of the activities in which they have been engaging throughout the past several years and which they are continuing. Indeed, I can do little more than list them.

In an effort to supply us the nurses our patients need, the Women's Auxiliary sponsors Future Nurses Clubs in high schools throughout the state and maintains a loan fund through which to help girls whose parents can't advance money for tuition and expenses. It aids in the rehabilitation program of the Iowa Society for Crippled Children and Adults by conducting annual handicapped-crafts sales in several Iowa cities. In cooperation with schools, churches and youth organizations, it is helping prevent emotional disturbances by circulating a series of instructional leaflets entitled "Milestones to Marriage."

The Auxiliary aids medical education by collecting money for the American Medical Education Foundation. It helps disseminate authoritative information on health problems to the public by selling subscriptions to TODAY'S HEALTH. It sponsors an annual essay contest for high school students on the topics: "The Advantages of Private Medical Care" and "The Advantages of the American Free-Enterprise System." And it makes an annual award to the woman—other than a doctor's wife or a paid health worker—who has made a most significant contribution to the health of her community.

Actually, the list is far longer than the preceding paragraphs would indicate. Each of the Auxiliary's 40 county chapters conducts discussions of legislation in which medicine is interested, and urges members (999 in the county Auxiliaries, and 91 members-at-large) to publicize our points of view in the other organizations to which they belong. And in each community, the county Auxiliary has local projects of its own in addition to the state-wide ones that I have named.

I hope that doctors throughout the state will join me in thanking the Auxiliary members for the assistance they are giving to us.



President

Iowa Academy of General Practice

THE TRADITION OF POSTGRADUATE MEDICAL STUDY

All physicians are aware that active members of the American Academy of General Practice must secure 150 hours of study credit during each three-year period—including 50 hours in Category I—if they are to continue in the organization. In fact, that postgraduate study requirement is the backbone of the AAGP.

Nowadays, when therapeutic methods are evolving with bewildering rapidity and when most of the medications in general use are new, there can be no doubt of physicians' need for constant study. No doctor—GP, specialist, instructor or research worker—can ever reach the point at which his training is complete.

In the medical field, fortunately, the Oath of Hippocrates pledges all practitioners to share with one another the information that they have gathered. Prior to 500 B.C., medicine was a priestcraft and its technics were zealously-guarded secrets. Then Hippocrates (b. 460 B.C.) set a different pattern. He understood the value of scientific observations and, in addition, he recognized the obligation that physicians have to cooperate in providing all patients the very best in medical care. Thus, he established the tradition under which doctors ever since have freely shared their discoveries. For this, he is rightfully called the Father of Medicine.

In the centuries that have followed, the art and practice of medicine have taken ever-increasing forward strides, and today we not only have medical schools that provide physicians their initial training but also have innumerable postgraduate conferences and clinics throughout each year, as well as hundreds upon hundreds of scientific publications—all for the ultimate benefit of the patient.

The perpetual advance of scientific knowledge and the constant dissemination of information present a challenge that keeps physicians alert and efficient. Actually, a physician never stops studying, and because he knows that his colleagues are uninterruptedly revising their understanding of physiologic and pathologic processes, and refining their skills, he never has a chance to become complacent or self-satisfied.

All physicians owe it to their patients to avail themselves of as many as possible of the forms of study that are open to them—lectures, demonstrations, books and learned articles. The Oath of Hippocrates requires that they do so, and their self-respect dictates that they devote ever greater shares of their time and effort, so as not to be left behind as medicine marches forward.

IAGP ANNUAL SCIENTIFIC PROGRAM

Be sure to attend the Tenth Annual Meeting and Postgraduate Scientific Program, to be held at the Savery Hotel, Des Moines, September 21, 22 and 23.

The guest speakers will include Dr. Joseph G. Molner, professor of preventive medicine and public health at the University of Michigan; Dr. Priscilla White, an eminent Boston pediatrician; Dr. A. L. Sahs, head of the Department of Neurology at S.U.I.; Dr. L. J. Halpin, a Cedar Rapids allergist; Dr. Francis Murphy, a clinical professor of medicine at Marquette University; Dr. Clark H. Millikan, a professor of neurology and psychiatry, and Dr. N. W. Barker, a professor of internal medicine, both from the University of Minnesota Graduate School at Rochester; and Dr. Jack McKenty, an obstetrician, and Dr. Bruce Chown, a professor of pediatrics at the University of Manitoba, both from Winnipeg.

Twelve hours of Category I credit will be granted to AAGP members who attend both days of scientific meetings. The preliminary program was published on pages 478 and 479 of the August issue of this JOURNAL.

WORK LOADS FOR CARDIAC FARMERS

"A Safe Work Load for Farmers With Heart Disease" is a 12-page pamphlet recently published by the American Heart Association and available from its office at 44 East Twenty-third Street, New York City 10.

It classifies many farm jobs according to the amounts of energy they demand. The booklet is intended to help the physician and the farmer-patient work together in mapping out a work prescription.

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

FIBROMAS OF THE UTERUS, ed. by *Robert A. Kimbrough*, M.D., and TOXEMIAS OF PREGNANCY, ed. by *Louis M. Hellman*, M.D., VOL. I, NUMBER 2, of CLINICAL OBSTETRICS & GYNECOLOGY, A QUARTERLY BOOK SERIES. (New York, Paul B. Hoeber, Inc., 1958. ($18 per year for four consecutive volumes).

HORMONE PRODUCTION IN ENDOCRINE TUMORS, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Maeve* O'Connor, B.A., VOL. XII, of the CIBA COLLOQUIA ON ENDOCRINOLOGY. (Boston, Little, Brown and Company, 1958. $9.00).

PHYSICIAN'S HANDBOOK, TENTH REVISED EDITION, by *Marcus A. Krupp*, M.D., *Norman J. Sweet*, M.D., *Ernest Jawetz*, M.D., and *Charles D. Armstrong*, M.D. (Los Altos, Calif., Lange Medical Publications, 1958. $3.00).

HANDBOOK OF MEDICAL TREATMENT, SIXTH EDITION, by *Milton J. Chatton*, M.D., *Sheldon Margen*, M.D., and *Henry Brainerd*, M.D. (Los Altos, Calif., Lange Medical Publications, 1958. $3.50).

BOOK REVIEWS

How to Live With Diabetes, by *Henry Dolger*, M.D., and *Bernard Seeman*, M.D. (New York, W. W. Norton & Company, Inc., 1958. $3.50).

Some diabetics who have inquiring minds require a detailed discussion of their disease. This book was written for them.

In an interesting fashion, the authors begin with what is known about diabetes at the present time. They elaborate upon heredity, metabolism in general, and the symptoms and findings. Then they take the reader back to ancient Egypt for the original description of the disease, and gradually bring him back to the present insulin and Orinase era, making him aware of how lucky he is to have been born in the twentieth century. The modern methods of management are then treated fully.

It is doubtful that the average middle-aged or elderly diabetic would give this fine book the careful study that it deserves, but one could well urge it upon the younger patient who faces a lifetime of living with diabetes. —*Arthur G. Lueck*, M.D.

Correlative Neuroanatomy and Functional Neurology, Ninth Edition, by *Joseph G. Chusid*, M.D., and *Joseph J. McDonald*, M.D. (Los Altos, Calif., Lange Medical Publications, 1958. $4.50).

The ninth edition of this useful volume has been enriched by the addition of a chapter on neurochemistry and by the addition of drawings and medical photographs. As before, this edition is lithographed on a good quality of paper, and is conveniently bound in a hard paper cover.

As a handbook, this volume would be difficult to improve upon. The methodology and presentation of the structural and functional features of the nervous system as related to problems encountered in clincial neurology is excellent.

I heartily recommend the ninth edition of this book to all practitioners who are interested in these subjects.

—*John T. Bakody*, M.D.

Love, Skill and Mystery, a Handbook to Marriage, by *Theodor Bovet*, M.D. (New York, Doubleday & Company, Inc., 1958. $3.50).

Dr. Bovet is described as a Swiss nerve specialist "who has become one of Europe's most highly regarded marriage counselors." His book, it is said, has been very successful in Europe, having sold over 100,000 copies.

Dr. Bovet spends a lot of time in developing what should be the spiritual side of marriage, and it is apparent that he has rather deep religious convictions on the subject. He also gives his ideas on the physical aspect of marriage.

In this country, I feel that the best use for this book can be made by clergymen who conduct classes or roundtables for married couples.

—*H. Kirby Shiffler*, M.D.

General Pathology (Based on lectures delivered at the Sir William Dunn School of Pathology, Oxford University), Second Edition, ed. by *Sir Howard Florey*. (Philadelphia, W. B. Saunders Co., 1958. $16.00).

If any treatise on the subject of general pathology may be so regarded, this volume based upon lectures delivered at Oxford University is facinating.

According to the editor, the lectures were prepared for the advanced medical student with a good grounding in physiology and biochemistry in the hope of arousing his interest in the functional as well as in the morphologic aspects of pathology at an early stage in his career.

No attempt was made to survey the whole field of pathology. Nevertheless, perusal of the book demonstrates that its scope is broad and that the topics have been well selected. There are 15 capable authors.

The immense subject of inflammation and related phenomena has been reviewed by Florey. He considers, for example, the influence of drugs upon inflammatory processes, the actions of drugs in acute and chronic diseases, and the actions of steroid hormones in inflammation. Others of the authors discuss such important phenomena as hemorrhage and shock, thrombosis, reactions of the blood to injury, fever, edema,

atherosclerosis, biological effects of radiant energy, and anaphylaxis and specific hypersensitivity.

It is the conviction of this reviewer that every physician should keep at hand a reference such as this one—not an old-fashioned textbook of pathology, but instead a dynamic review of pathologic morphology and physiology. —*R. F. Birge,* M.D.

DRUGS IN CURRENT USE, 1958, ed. by *Walter Modell,* M.D. (New York, Springer Publishing Co., 1958. $2.00).

This is the fourth annual publication of Dr. Modell's paper-backed list of drugs in current use. As he says, it is impossible to list all of the medications on the American market, much less all the combinations of medications. He attempts, instead, to list alphabetically the chemical compounds such as the antifungals, the antihistamines and the menthol compounds, and gives brief résumés of the uses, limitations, modes of administration and types of preparations of most of the important ones. For the most part, chemical names are given chief priority, although occasionally a drug like Miltown in listed, with the cross reference "See meprobamate."

In the bewildering era of present-day pharmacology, the practicing physician should appreciate a compendium such as this, and druggists might also benefit from having it at hand. The individual titles are large, and the subtended explanations are brief and accurate.

The reviewer has only one suggestion to make to the author. It would seem that the main body of the volume should be made up of the list of chemical compounds, but that a separate index should be provided in order to show the trade names under which they are marketed and where each can be located.

—*Daniel A. Glomset,* M.D.

THE PSYCHOLOGY OF MEDICAL PRACTICE, by *Marc H. Hollender,* M.D. (Philadelphia, W. B. Saunders Co., 1958. $6.50).

Once in a blue moon one finds a book that represents a new slant. Dr. Hollender has collaborated with three other physicians to bring us the practical psychological background of the doctor-patient relationship. In this relatively small book are listed the technics of treating and mistreating patients suffering from medical, surgical, pediatric and obstetrical difficulties. He also deals with basic and practical concepts of the doctor-patient relationship, and takes up the psychological considerations that are involved in the use of medications. Questions are asked in bold-faced type, and they are subsequently answered. Cases are used as illustrations; quotations are employed to simulate conversations between doctor and patient.

The book surveys an area that is sadly neglected by the universities in their teaching of "scientific medicine." If all students, internes and practicing physicians were to read this volume, they might gain insight into their own mannerisms with patients, and into the reasons for patients' "peculiarities."

The book is very lucidly and simply written, and it is a pleasure to read. An attempt to attain deeper insight into our own mannerisms with patients is stimulating, for sometimes, as the author points out, we find that we have really undertaken to treat *ourselves,* rather than the patient.

The contents of the book are extremely practical for all who care for the sick. My hat is off to Dr. Hollender!

—*Daniel A. Glomset,* M.D.

MODERN CLINICAL PSYCHIATRY, FIFTH EDITION, by *Arthur P. Noyes,* M.D., and *Lawrence C. Kolb,* M.D. (Philadelphia, W. B. Saunders Co., 1958. $8.00).

This is one of the standard textbooks of modern psychiatry. It has been brought up to date throughout, and presents in clear and adequate language the modern concepts of dynamic psychology, and the modern concepts of organotherapy and psychotherapy.

The volume presents fairly short, concise discussions of the various schools of psychotherapy, the Freudian concepts and the recent variations. A new chapter not formerly included undertakes to clarify the interrelations of psychiatry and the law.

As a practicing psychiatrist, this reviewer feels that the present edition of this text could well be included in any library. —*Howard V. Turner,* M.D.

SHORT COURSE IN ANESTHESIA AT MADISON

The first of this year's series of medical short courses at the University of Wisconsin Hospitals, in Madison, will take place on October 10 and 11, and is entitled "Advances in Anesthesia and Resuscitation." Following is the description of it that has been published: "Within the past five years there have been significant advances in the field of Anesthesiology. General anesthetic agents (fluothane), quick acting muscle relaxant drugs (succinycholine), hypotensive producing agents, and hypothermic techniques have all received considerable attention. New methods of resuscitation have practically revolutionized the previously accepted ones about which doctors generally possessed minimal knowledge. Clinical demonstration and integration of this information will be made in the operating room. This will be related to basic physiological and pharmacological principles, and compared in usage with previously established agents and techniques."

There is a $5 registration fee, and in addition a charge of $10 per course day. Motel reservations can be made along with advance registrations. Address Dr. Robert C. Parkin, 418 North Randall Avenue, Madison 6.

Attend the
1959 ISMS ANNUAL MEETING
April 19-22
Des Moines

THE DOCTOR'S BUSINESS



Investment Funds

HOWARD D. BAKER

WATERLOO

INVESTMENT FUNDS continue to play an increasingly important role in today's highly complex and selective market. As we have said on previous occasions, there are many types of these funds. They vary as regards management and investment policy. In this discussion, we shall talk about those of the "open-end" funds in which the subscriber's money is invested exclusively in common stocks.

We feel today that these "growth stock" or "common stock" open-end shares offer the greatest investment opportunity for the professional man who already owns adequate "dollar contracts" in the form of life insurance and bonds. If, by such means, one has already provided a counterbalance for variable-value investments, there is little logic in buying into a fund that will "balance" his portfolio even further. In return for the "loading charge" that the investor pays when he buys shares, he receives full-time, expert management, and for the man who has neither skill nor leisure for such work, the money is well-spent.

We feel that for the doctor who owns life insurance and bonds, the best choice is a fund invested 90 per cent or more in common stocks. Only by this means can he realize the full growth and income potential of the investment fund.

One must next consider the wide variations in the performances of seemingly similar funds. There is no certainty, of course, that the future will duplicate the past, but the best measure of management ability available is provided by the performance records, and they should be a prime consideration when one selects a fund for investment.

In the tabulation that follows, we give performance data on the leaders of the open-end funds for 1957, for the past five years, for the past 10 years and for the past 15 years.

In addition, we show the results which would have been achieved by investing $10,000 in a lump sum 15 years ago, and those which would have been achieved through investing $100 per month over the same 15-year period, assuming the reinvestment of all distributions in either case.

The funds are listed alphabetically, and the order is not intended to indicate preferability. All of them are excellent and worthy of consideration.

The data for this tabulation has been taken from Arthur Wiesenberger's 1958 INVESTMENT COMPANIES.

PERFORMANCE RESULTS OF SELECTED OPEN-END FUNDS

	1957	*Jan. 1, '53 to Dec. 31, '57*	*Jan. 1, '48 to Dec. 31, '57*	*Jan. 1, '43 to Dec. 31, '57*	*$10,000* Jan. 1, '43 to Dec. 31, '57*	*$100/mo.* Jan. 1, '43 to Dec. 31, '57*
	PER CENT	PER CENT	PER CENT	PER CENT		
Eton & Howard Stock Fund	— 9	+ 83	+263	+555	$77,768	$53,141
Fidelity Fund	—15	+ 67	+221	+535	76,416	49,040
Founders Mutual	—10	+ 83	+222	+412	64,161	46,659
Inst. Growth	—16	+ 82	+285	+265†	44,460	43,924
Keystone S-3	—23	+101	+246	+569	85,333	54,448
Keystone S-4	—19	+ 71	+265	+777	101,247	50,568
Massachusetts Investment Trust	—11	+ 82	+240	+465	70,189	51,450
Massachusetts Inv. Growth Stock Fund	—12	+ 90	+260	+552	77,459	53,650
National Investors	— 6	+ 96	+244	+260	84,767	53,717
National Sec. Growth Stock Series	—12	+ 87	+259	‡	‡	‡

* These figures take into consideration load charges and assume the reinvestment of all dividends, ordinary and capital.
† Prior to 1953, this fund was called Aviation Group Shares, and investments were restricted to the aviation industry.
‡ Organized in August, 1944. Thus a 15-year comparison is not yet possible.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

MORBIDITY REPORT FOR MONTH OF JULY

Disease	*1958 July*	*1958 June*	*1957 July*	*Most Cases Reported From These Counties*
Diptheria	2	0	2	Webster
Scarlet fever	76	88	42	Boone, Jefferson, Johnson
Typhoid fever	3	1	2	Clarke, Crawford, Johnson
Smallpox	0	0	0	
Measles	587	2032	384	Clay, Hancock, Linn, Scott
Whooping cough	9	7	11	Buena Vista, Dubuque
Brucellosis	12	10	23	Cedar, Washington
Chickenpox	36	304	57	Linn
Meningococcus meningitis	0	1	0	
Mumps	190	604	182	Buena Vista, Clay, Linn, Scott
Poliomyelitis	0	4	5	
Infectious hepatitis	5	6	5	Polk
Rabies in animals	14	27	11	Iowa
Malaria	0	0	0	
Psittacosis	2	1	0	Delaware, Muscatine
Q fever	0	0	0	
Tuberculosis	49	33	33	For the state
Syphilis	97	101	78	For the state
Gonorrhea	59	50	37	For the state
Histoplasmosis	2	3	0	Polk
Food intoxication	0	0	0	
Meningitis (type unspec.)	0	0	0	
Diphtheria carrier	7	1	0	Woodbury
Aseptic meningitis	0	0	0	
Salmonellosis	3	4	3	Johnson, Marion, Webster
Tetanus	0	0	1	
Chancroid	0	0	0	
Encephalitis (type unspec.)	0	0	1	
H. influenzal meningitis	0	0	0	
Amebiasis	2	2	8	Boone, Scott
Shigellosis	0	1	0	
Influenza	0	14	0	

POSTAGE ON SPECIMEN CONTAINERS

The State Hygenic Laboratory has been notified that all odd parcels (Third Class Mail), including its mailing containers, must now bear a *minimum* of 6c postage. Specifically, the new rates call for 3c for the first two ounces and 1½c for each additional ounce, but no less than 6c in all.

Postage which now must be placed on containers is as follows:

Syphilis serology containers	6c
Agglutination test containers	6c
Diphtheria containers	7½c
Tuberculosis containers	9c
Stool (typhoid) containers	9c
Stool (parasites & ova) containers	9c
Envelope mailer (slide)	6c

Please see that adequate postage is placed on these containers. Even if the State Laboratory were to continue paying postage due and subsequently collecting from the mailer, the payment of postage due would be a nuisance to everyone concerned.

IOWA V-D AGE DISTRIBUTION, 1946-1957

Recent analyses (see accompanying tables) covering all cases of syphilis and gonorrhea reported to the Iowa State Department of Health from all sources for the 12-year period 1946-1957, inclusive, shows that more than half (51.6 per cent) of all reported cases of gonorrhea have occurred in young people between 15 and 24 years of age. Yet, this group accounted for only 15.0 per cent of all cases of syphilis which were reported. The five-year age group 15-19 alone accounted for 17.7 per cent of the total cases of gonorrhea, and 4.98 per cent of the cases of syphilis.

These figures seem to indicate that gonorrhea is more prevalent among teenagers and people in their early twenties than among older persons, and that gonorrhea is more of a problem in the younger age groups than is syphilis. Yet, at least the latter of these indications may be somewhat deceptive.

First, the number of cases of gonorrhea *reported* represents no more than a small portion of the total cases actually diagnosed and treated throughout the state. The poor reporting may reflect the relative unimportance to which gonorrhea has been relegated since penicillin began offering a quick, effective and comparatively painless cure. Second, the larger percentages of syphilis cases reported are in the older age groups (52.9 per cent between the ages of 30 and 59 years), and these age groups account for 71.2 per cent of the cases diagnosed as "late latent" and "other late" syphilis.

Thus, rather than indicating a greater concentration of gonorrhea—as compared to syphilis—in the younger age groups, these figures may reveal a "public health failure" as regards the prompt diagnosis of syphilis. If the syphilis cases had been discovered during their infectious stage, adequate

treatment could have been instituted and the disease need not have progressed to the stage of latency.

The likelihood that syphilis should—and probably does—occur in the younger age groups at rates similar to those of gonorrhea is borne out by the fact that 54.3 per cent of all cases of primary, secondary and early-latent syphilis reported are in the age group 15-30. Further, this serves as a reminder of the necessity for adequate interviewing of all patients with early infectious syphilis, in order to learn the identity of their sex contacts and to investigate, examine and treat the contacts who have been infected.

SYPHILIS MORBIDITY IN IOWA BY AGE GROUPS AND SEX, 1946-1957

Age Group	*Sex*	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*Total*	*Per Cent*
Infants	M	3	8		6	10	5	2	2	3	3			42	
1 year	F		3		2	5	6		5	3	6	1	2	33	.39
1-4 years	M	1	5	5	1	1	1		1	1				16	
	F		1	3	1	1	3		1					10	.13
5-9 years	M	2	3	3	1	1	2		3	1	1			17	
	F	5	6	5	3	1		1		1				22	.20
10-14 years	M	14	11	4	5	9	6	3	2	1	3		1	59	
	F	2	9	4	2	11	6	6	2	5	2			49	.56
15-19 years	M	61	48	35	27	25	28	17	23	15	11	13	9	312	
	F	83	118	87	88	56	55	19	47	27	19	27	15	641	4.98
20-24 years	M	186	154	144	99	79	59	23	37	31	19	22	24	877	
	F	174	172	147	132	93	69	52	65	50	35	23	27	1039	10.02
25-29 years	M	144	148	1122	86	78	75	36	35	28	14	17	19	792	
	F	113	153	85	134	90	75	60	71	53	38	27	32	931	9.01
30-39 years	M	210	215	142	178	147	125	78	123	82	48	36	51	1435	
	F	163	259	156	219	193	160	95	180	121	87	73	78	1784	16.84
40-49 years	M	143	222	148	207	213	169	129	198	161	90	81	97	1858	
	F	102	187	104	205	193	144	112	222	192	114	106	136	1817	19.23
50-59 years	M	90	180	111	229	188	194	115	201	190	131	135	147	1911	
	F	45	111	54	147	127	108	88	170	144	90	111	113	1308	16.84
60-69 years	M	47	121	70	132	139	161	83	133	111	106	92	153	1348	
	F	20	62	34	64	61	55	56	94	76	79	55	73	729	10.9
70-79 years	M	16	26	19	20	29	28	30	23	43	30	23	57	344	
	F	4	23	10	7	16	9	14	15	21	32	12	42	205	2.97
80 plus	M	0	6	1	1	2	1	6	3	12	9	11	12	64	
	F	1	5	2	1		1	4	2	3	2	6	14	41	.54
Age not stated	M	21	62	29	57	62	59	48	63	67	61	48	79	656	
	F	10	70	24	72	55	66	51	114	88	69	66	81	766	7.4
Subtotals	M	938	1209	823	1049	983	913	570	847	746	526	478	649	9731	50.9
	F	722	1179	715	1077	902	757	558	988	784	573	507	613	9375	49.1
Grand Total		1660	2388	1538	2126	1885	1670	1128	1835	1530	1099	985	1262	19106	

GONORRHEA MORBIDITY IN IOWA BY AGE GROUPS AND SEX, 1946-1957

Age Group	*Sex*	*1946*	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*Total*	*Per Cent*
Infants	M						1			1				2	
1 year	F	1		1		1	1						1	5	.06
1-4 years	M			1	1									2	
	F	7	2	2			1	1		1			4	18	.18
5-9 years	M		1	3										4	
	F	8	12	3	4	2	3	1		2			1	36	.36
10-14 years	M	1	1	3			7		1		1	1	1	16	
	F	5	7	8	6	8	4	10	32	15	3	12	13	123	1.26
15-19 years	M	144	112	65	50	50	47	38	59	52	45	45	43	750	
	F	204	154	100	73	53	77	70	130	101	74	114	70	1220	17.9
20-24 years	M	605	422	291	218	151	113	86	129	118	102	129	110	2474	
	F	243	180	140	109	71	68	63	77	88	69	81	66	1255	33.9
25-29 years	M	342	217	159	140	89	96	103	96	84	100	87	55	1568	
	F	102	55	54	36	32	47	26	25	33	32	44	30	516	18.9
30-39 years	M	260	135	121	69	72	50	47	49	69	48	63	61	1044	
	F	64	63	35	24	37	28	24	27	35	19	26	24	406	13.2
40-49 years	M	37	41	42	25	25	15	18	13	23	20	18	15	292	
	F	17	24	15	10	13	5	3	2	8	10	7	2	116	3.7
50-59 years	M	13	17	11	10	6	4	1	11	8	6	4	2	93	
	F	6	9	1	1	2	4	2		1	4	1		31	1.12
60-69 years	M	4	7	5	2	4	3	1	1	1	1		1	30	
	F			2	1			1			1	1		6	.32
70-79 years	M		1				2							3	
	F				1									1	.03
80 plus	M					1								1	
	F														.01
Age not stated	M	23	18	36	39	105	49	57	81	97	69	73	72	719	
	F	9	6	10	18	29	31	18	36	44	31	16	27	275	9.03
Subtotals	M	1429	972	737	554	503	387	351	440	453	392	420	360	6998	63.6
	F	666	512	371	283	248	269	219	329	328	243	302	238	4008	36.4
Grand Total		2095	1484	1108	837	751	656	570	769	781	635	722	598	11006	

Woman's Auxiliary News

OUR PRESIDENT SAYS—

As I write this message for the September WOMAN'S AUXILIARY NEWS, it is still summer. I have moved my typewriter out on our comfortable screened porch so that I may enjoy the flowers in the yard as I work on plans for our fall and winter activities. The roses are my husband's special pride and joy, and they are beautiful. We also have several varieties of lilies blooming along the fence. The petunias, pansies, nasturtiums, zinnias and glads combine to make a colorful display. I have a deep feeling of satisfaction and a sense of achievement when I look at our garden, for it is the result of many hours of planning, planting and cultivating.

So it is with our Auxiliary activities. We spend many hours in planning programs and projects for the Auxiliary as a whole. Not every project is suitable for every Auxiliary. No attempt is made to stress any one particular project for special attention from every group. State Auxiliaries must attempt to fit their projects and activities to the needs of their own states, and county Auxiliaries, in turn, must choose those parts of the program which will answer the specific needs of their own communities and which will stimulate the support and interest of their memberships. Both at the state and at the county level, it is necessary that Auxiliaries have the approval of their respective medical societies, and I suggest that Auxiliary officers clear all projects and speakers with their advisors as they plan their year's activities.

A program designed to arouse the interest of Auxiliary members and to attract prospective members should consist of activities of several sorts and, if possible, in diverse areas of the health field, since a single kind of work or a particular, rather narrow objective may not appeal to all doctors' wives, and we want to enlist the enthusiastic cooperation of all of them. But if we sow the seeds of our various projects and activities in the fertile soil of the Auxiliary membership, nurture the soil with friendship and cultivate with hospitality, the full flowers of our achievements will appear in a profusion and glory exceeding our fondest hopes.

As we begin this new season, may I urge you to devote some part of your busy life to the Auxiliary. We have time for doing good things, good works and good turns. Careful planning will help each of us find the necessary time. There is no room for pettiness, jealousy and selfishness in the work of our organization, for we are devoted and dedicated to the high principles of the medical profession and there are innumerable tasks for us to do.

The officers of the Auxiliary guide the activities of the group, but the devotion and the hard work of each and every member will produce each of its successes. You need not be a ball of fire to promote the good work of the Auxiliary. Many of the world's finest accomplishments have been the achievements of average men and women who have just done their best!

Mrs. Herbert C. Merillat
President

THIS IS YOUR AMERICA!

America is a democracy, and you are Americans living in a democratic society. Of course you are a great many other things too, and in each of your various capacities you have numerous responsibilities—food, clothing and shelter for your families, white sales, juvenile delinquency and "Why John can't read." But in a democracy such as ours, you all other adults must not shirk your duty to keep well informed on civic and national problems, and to help determine government policy.

This is an election year, and now is the time to study the men and women who are candidates for office and who, if they are elected, will either make or administer the laws at the local, state and national levels. Be thorough in your reading; evaluate the printed word; and keep in mind what will be best for this country, for your families and for yourselves. Take the long view, so that America will remain strong for generations to come.

On local issues, citizens have a direct influence through the votes they cast on proposed bond issues and on other questions when a referendum has been called for. In addition, people who carefully inform themselves and both express their opinions about the candidates and vote in city council, county-officer and school board elections can be highly influential in the selection of the people who are to direct their community affairs.

On the national and international scenes, you may feel that your voices are only weak ones, but

if you exert the requisite effort you can make them heard. You are as close to your state legislators and to your national senators and representatives as you are to your writing paper or your telephone. Make sure that your elective representatives understand your views and desires on the important issues of the day, even as regards federal legislation and our country's foreign policy!

A lasting peace may well depend upon you and upon women like you throughout America. It may depend upon how well informed you make yourselves about our country's needs. Don't belittle yourselves! Elected officials—all of them—are anxious to hear your views, along with everyone else's, and what you tell them of your ideas about the United Nations, the use of atomic energy, and the demands and obligations of international cooperation may be incalculably influential.

Seek information, mull it over, and tell your conclusions to your friends. Help keep America strong by adding your mite of intelligent leadership!

Jane King
Legislative Chairman

SAFETY CONFERENCE

The safety commissioner for the State of Iowa, Mr. Russell Brown, is planning to call the Second Woman's Traffic Safety Conference shortly. It will be held in the House Chamber in the State Capitol, from 10 a.m. to 3 p.m., on September 30. It goes without saying that every Auxiliary member is interested in the problems that will be discussed there, and it is important that our organization should have a large representation.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to Mrs. Lammey, 529-36th Street, Des Moines 12, Iowa.

COUNTY AUXILIARIES

Clay

The Spencer Future Nurses Club sponsored by the Woman's Auxiliary to the Clay County Medical Society completed another successful year last June. Five seniors in the organization are entering nurses' training—two at the University of South Dakota, one at St. Luke's Methodist Hospital, Cedar Rapids, one at St. Joseph Hospital, Sioux City, and one elsewhere.

The final activity in the year's program was an all-member slumber party at the home of Dr. and Mrs. Dean H. King. Thirty of the girls attended it.

Club members have continued work this summer. Eight of them assisted in the June clinic for crippled and handicapped children at Spencer. Two hundred fifty-two children were seen during the day, and the assistance of the Future Nurses was very valuable to the sponsoring organizations.

Marshall

During the Fourth of July weekend, Mrs. C. R. Sokol and her fellow Auxiliary members in State Center provided printed cards for the town's police to hand out to motorists whom they stopped for exceeding the speed limit. The message was as follows:

You Are Speeding!

In an effort to save lives and get you to your destination safely on the Fourth of July, the town of State Center cautions you to slow down and drive carefully.

We wish you a happy Fourth.

Courtesy of State Center Police Department.

AMEF NOTEPAPER

The AMEF Committee has a new notepaper for your use. There is still a small supply of the fall scene as well as the new countryside scene. Order yours now, specifying the design you wish, and it will be forwarded to you promptly. Both designs are priced at $1.00 for a packet of 10 each notepaper and envelopes.

What easier way to reach your AMEF quota?

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 116 Lincoln Place Drive, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 307 49th St., Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Coming Meetings

(Continued from page 492)

Oct. 2-4 **American Association of Medical Clinics.** Palace Hotel, San Francisco

Oct. 2-4 **American Association for the Surgery of Trauma.** Drake Hotel, Chicago

Oct. 2-4 **Central Association of Obstetricians & Gynecologists.** Hotel Leamington, Minneapolis

Oct. 2-4 **Clinical Orthopaedic Society.** Brown Palace Hotel, Denver

Oct. 2-4 **Midwest Cardiac Conference: Rheumatic Fever and Rheumatic Heart Disease.** Town House Motel, Omaha

Oct. 3 **Cardiac Resuscitation.** Emory U. School of Medicine, Atlanta

Oct. 3-4 **International College of Surgeons, Alabama Surgical Division Meeting.** Medical College of Alabama, Birmingham

Oct. 3-4 **Oregon-Oklahoma Combined Specialty Meeting for Practicing Physicians.** U. of Oklahoma Medical Center, Oklahoma City

Oct. 3-4 **Pacific Northwest Society of Pathologists.** Priest Lake, Idaho

Oct. 3-5 **Western Industrial Health Conference, Western Industrial Medical Association.** Claremont Hotel, Berkeley

Oct. 5-8 **Tenth Annual Scientific Assembly, California Academy of General Practice.** Masonic Temple, San Francisco

Oct. 6-8 **Obstetrics for Specialists.** U. of Minnesota, Minneapolis

Oct. 6-9 **First Institute on Veterinary Public Health Practice (U. of Michigan School of Public Health).** Rackham Building, Ann Arbor

Oct. 6-10 **American College of Surgeons.** Chicago

Oct. 6-10 **Dermatology & Sphilology** (For Pediatricians). N.Y.U., N.Y.C.

Oct. 6-10 **Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 6-17 **Electrocardiography.** Cook County Graduate School of Medicine, Chicago

Oct. 8 **Pediatric Diagnostic Problems.** U. of Oklahoma Medical Center, Oklahoma City

Oct. 8-9 **Los Angeles County Heart Association, Professional Symposium.** Wilshire-Ebell Theatre, Los Angeles

Oct. 8-11 **National Association for Retarded Children, Inc.** Philadelphia

Oct. 9-11 **Psychosomatic Aspects of Internal Medicine (Academy of Psychosomatic Medicine).** Park Sheraton Hotel, New York City

Oct. 9-11 **American Clinical & Climatological Association.** Otesaga Hotel, Cooperstown, New York

Oct. 10-11 **Advances in Anesthesia & Resuscitation.** U. of Wisconsin Medical School, Madison

Oct. 10-11 **Interim Meeting, Association of American Physicians & Surgeons.** Chicago

Oct. 12 **American Otorhinologic Society for Plastic Surgery.** Conrad Hilton Hotel, Chicago

Oct. 12-17 **Medical Society of Virginia.** Hotel Jefferson, Richmond

Oct. 12-17 **American Academy of Ophthalmology & Otolaryngology.** Palmer House, Chicago

Oct. 12-17 **American Society of Plastic & Reconstructive Surgery.** Drake Hotel, Chicago

Oct. 12-17 **Medical Society of the State of Pennsylvania.** Bellevue-Stratford Hotel, Philadelphia

Oct. 13-15 **Association of American Medical Colleges.** Ocean House, Swampscott, Massachusetts

Oct. 13-15 **Indiana State Medical Association.** Murat Temple, Indianapolis

Oct. 13-16 **American Association of Medical Record Librarians.** Statler Hotel, Boston

Oct. 13-17 **Clinical Cardiopulmonary Physiology (American College of Chest Physicians).** Edgewater Beach Hotel, Chicago

Oct. 13-17 **Second Annual Postgraduate Week.** New York Academy of Medicine, New York City

Oct. 13-24 **Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 13-24 **Office & Operative Gynecology.** Cook County Graduate of Medicine, Chicago

Oct. 13-24 **Two-Week Intensive Course in Urology.** Cook County Graduate School of Medicine, Chicago

Oct. 13-25 **Surgery (U. S. Section, International College of Surgeons).** Cook County Hospital, Chicago

Oct. 14-Nov. 18 **Fifth Annual Fort Miley Surgical Clinics and Symposia (San Francisco Academy of General Practice, Faculties of Stanford & U. of California Schools of Medicine).** Fort Miley Veterans Administration Hospital, San Francisco

Oct. 15-16 **Hematology.** U. of Nebraska College of Medicine, Omaha

Oct. 15-17 **Sixth Symposium on Antibiotics** (Journals ANTIBIOTICS AND CHEMOTHERAPY & ANTIBIOTIC MEDICINE AND CLINICAL THERAPY). Willard Hotel, Washington, D. C.

Oct. 16-17 **Homecoming Course, Advances in Diagnosis & Treatment Developed in Last Five Years.** U. of Southern California, Los Angeles

Oct. 16-30 **Ante-partum Care** (Woman's Hospital, Div. of St. Luke's Hospital). New York City

Oct. 16-30 **Conduct of Labor and Delivery** (Woman's Hospital, Div. of St. Luke's Hospital). New York City

Oct. 17-18 **Fourth Annual Meeting, American Rhinologic Society.** Palmer House, Chicago

Oct. 17-18 **Central Neuropsychiatric Association.** Deshler-Hilton Hotel, Columbus

Oct. 17-19 **Annual Meeting, California Society of Internal Medicine.** Ahwahnee Hotel, Yosemite

Oct. 17-19 **Review of Critical Pulmonary Problems (Colorado Chapter, American College of Chest Physicians, Colorado Heart Study Club).** U. of Colorado Medical Center, Denver

Oct. 19-24 **American Society of Anesthesiologists.** Penn-Sheraton Hotel, Pittsburgh

Oct. 20-23 **American Academy of Pediatrics.** Palmer House, Chicago

Oct. 20-24 **Blood Vessel Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 20-28 **Twenty-third Annual Convention, American College of Gastroenterology.** Jung Hotel, New Orleans

Oct. 20-31 **General Review Course in Medicine.** Cook County Graduate School of Medicine, Chicago

Oct. 20-31 **Laboratory Methods in Diagnosis of Tuberculosis.** USPHS Communicable Disease Center, Chamblee, Georgia

Oct. 22-24 **Association of Life Insurance Medical Directors of America.** Statler Hotel, Hartford, Connecticut

Oct. 22-24 **Association of State & Territorial Health Officers.** Hotel Washington, Washington, D. C.

Oct. 22-24 **Aviation Medicine.** U.C.L.A., Los Angeles

Oct. 22-25 **Western Orthopedic Association.** Multnomah Hotel, Portland, Oregon

Oct. 23-24 **Gulf Coast Clinical Society.** Pensacola, Florida

Oct. 23-25 **Dermatology for General Physicians.** U. of Minnesota, Minneapolis

Oct. 23-25 **Southwestern Medical Association.** Pioneer Hotel, Tucson, Arizona

Oct. 24-26 **American Society for the Study of Arteriosclerosis.** Hotel Whitcomb, San Francisco

Oct. 24-28 **American Heart Association Scientific Sessions & Meetings.** Fairmont Hotel & Civic Auditorium, San Francisco

Oct. 26-28 **Psychiatric Orientation for General Practice (U. of California).** Herrick Hospital, Berkeley

Oct. 26-31 **American School Health Association.** St. Louis

Oct. 27-29 **Oklahoma City Clinical Society.** Biltmore Hotel, Oklahoma City

Oct. 27-31 **American Public Health Association.** Kiel Auditorium, St. Louis

Oct. 27-31 **General Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 27-31 **Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago

Oct. 27-Nov. 7 **General & Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago

Oct. 27-Nov. 7 **Surgical Technic.** Cook County Graduate School of Medicine, Chicago

Oct. 29-30 **Twenty-eighth Annual Professional Symposium, Los Angeles County Heart Association.** Wilshire-Ebell Theatre, Los Angeles

Oct. 29-31 **American Cancer Society.** New York City

Oct. 29-31 **Annual Meeting, Society for Clinical & Experimental Hypnosis.** Morrison Hotel, Chicago

Oct. 29-Nov. 1 **Congress of Neurological Surgeons.** St. Francis Hotel, San Francisco

Oct. 30-Nov. 1 **Ninth Annual Conference, National Association for Music Therapy.** Netherland-Hilton Hotel, Cincinnati

Oct. 30-Nov. 1 **Special Cardilogical Sessions, Hawaii Heart Association, Inc.** Princess Kaiulani Hotel, Honolulu

Oct. 31-Nov. 1 **Canadian Society for the Study of Fertility.** London, Ontario, Canada

Oct. 31-Nov. 1 **Central Society for Clinical Research.** Drake Hotel, Chicago

Oct. 31-Nov. 2 **Second Annual Meeting, American Association of Medical Assistants.** Palmer House, Chicago

An American Philosophy of

Financing Health Care Costs

E. J. FAULKNER

LINCOLN, NEBRASKA

AMONG THE MANY phenomena unique to our times is the disparity of progress between the physical sciences, on the one hand, and the humanities and social sciences, on the other. Our physicists have been able to fabricate atom and hydrogen bombs; but mankind has achieved discouragingly little in learning how to avert war. Our engineers and our businessmen have perfected marvelous methods and machines for producing enormous amounts of goods and services; but we have not yet been able to adjust the processes of distribution and consumption to our enhanced ability to produce.

The history of medicine, particularly during the past 50 years, is an inspiring story of the scientific conquest of many of the diseases that previously killed or crippled. The average life span has been lengthened substantially, and the incidences of many scourges have been reduced radically. Yet, the swift pace at which medical knowledge and technics have moved ahead has not been matched by an elimination of the problems involved in utilization of modern health-care services. In fact, the forward sweep of scientific medicine has engendered or intensified many of the thorniest problems of medical economics.

Today, the practice of medicine is in the throes of change induced not only by the expanding horizons of science but by the necessities of adaptation to an evolutionary economy. It does not overstate the case, I believe, to say that medicine is in the vortex of a mass of influences—social, economic, scientific and political. As much as any business or any other profession, medicine has felt the full impact of the mutations of widely-held public attitudes and philosophies which have occurred during the past 25 years.

When my grandfather established his medical practice in a small Nebraska town in 1884, ours was a simple, pastoral economy. His knowledge of medicine and the facilities that he needed for his practice were simple by comparison to what physicians know and what they need today. In his little black bag, he carried with him his entire armamentarium. The economics of his practice often had its basis in barter, except for the 50 cents that he received in cash for the prescriptions which he compounded himself. I need not sketch for you the contrast between his practice and yours. Today's elaborate apparatus, expensive procedures and burgeoning specialization are the consequence of your expanding knowledge and your continuing determination to provide the American people with the best possible health care.

Coincident with the revolutionary changes that have occurred in medicine, there has been a decline in individual economic self-sufficiency induced by America's transition from a predominantly rural, agricultural economy to a virtually nationwide industrial one. In my grandfather's time, simple family and community arrangements sufficed to meet the problems of financing health care. Now, the individual and the family unit must have the help of some socio-economic mechanism if they are to weather the financial storms of disability.

FREE ENTERPRISE MUST BE PRESERVED

We in America are fortunate in that when the complex problems of modern medical economics first became acute 25 years ago, the tradition of individual initiative was still quite strong. Thus, America's efforts to develop new ways for paying the costs of illness and injury were kept primarily within the framework of private enterprise. In other lands, when the industrial revolution intensified the economic interdependence of the people, the state stepped in to finance the increasing costs of health care. But here, entrepreneurs sensed a need that could be met by private industry, and developed private health insurance. More recently, service-plan insurers have been established, out of a desire of hospital administrators and medical societies to ease the financial problems of patients.

It is true that since 1933 there has been a growing intrusion by government into the field of health care. Government has always had a quite proper interest in some aspects of health care—in providing the various public health services, and in providing care for members of the armed forces, the indigent and people in special categories, especially patients afflicted with illnesses such as tuberculosis and the psychoses who have long-term needs. But a more recent and more disconcerting trend of government-financed health care is exemplified by the inclusion of permanent- and total-disability benefits in our Social Security system and by the provision of Veterans Administration care to individuals who once wore military uniforms but now are suffering from non-service-connected disabilities.

You are familiar with the insistent pressure

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which is coming from some elements in our population for a further socialization of health care. One has but to know the history of compulsory health insurance and socialized medicine elsewhere to conclude that if our country is to be spared the incubus of the inferior care that is the seemingly inevitable product of government-dominated medicine, our American system based upon the private practice of medicine, the non-profit hospital and voluntary type of health insurance must be made to provide a satisfactory measure of health services and financial protection for nearly all of our people.

The essential philosophy of this peculiarly American system must be more clearly delineated, and must be better understood, particularly by the three groups who have the responsibility for making it work—the doctors, the hospitals and the insurers. We who are part of this complex need to sharpen our appreciation for the fact that the problems of each of the three groups are the problems of all—that if the practice of medicine or the operation of our hospitals should be socialized, or if the financing of health care should be nationalized, the entire system would fail.

The tenets of our American philosophy of providing and financing health care are based squarely on our belief that quality care is best and most economically provided by physicians in private practice, freely chosen and employed by their patients, and through voluntary hospitals whose administration by lay boards and medical staffs is unencumbered by government mandate or dictation. Such a system can prevail only so long as the arrangements for financing the services it renders remain within the structure of private enterprise, unsubsidized by government. There is an ancient maxim of finance—"It is a great mistake to make a king one's partner." It is equally applicable to the profession of medicine and the business of insurance. We need be ever mindful of the dictum of the Supreme Court of the United States in the AAA case that "It is hardly lack of due process for the government to regulate that which it subsidizes."[1]

OUR PRESENT SYSTEM WORKS WELL

The welter of words spoken and printed in the past few years about the problems of health-care financing has been a prolific source of confusion. It is no wonder, in the face of so many and freely-offered opinions—some sound, but more of them sophistical or uninformed—that many people are perplexed and fail to see how effectively the American system is functioning today. Too few realize what an amazing record of growth and progress in the public interest it has had. I need not describe to physicians the record of medicine in our country. It is a brilliant and inspiring history of successive gains that have contributed immeasurably to the common good. The American people are the beneficiaries of the finest health care enjoyed by any great nation; and I think that in the process it is significant that most physicians have prospered in reasonable proportion to the dedication, effort and ingenuity which they have invested in their practices. What a contrast there is between American doctors under the American system, on the one hand, and on the other, their British brethren, who must threaten their government with a strike in order to secure meager increases in capitation fees.

The record of our voluntary hospitals likewise is one of expansion, improvement and progress. True, the ever-upward trend of hospital costs has been a chronic problem, but with few exceptions, the able hospital administrators have met the demands placed upon them and have moved ahead.

We in the insurance business find room for quiet pride in the record of growth and improvement that our business has experienced. At the end of 1957, no fewer than 123,000,000 Americans had some form of voluntary hospital insurance; 109,000,000 had surgical insurance; 75,000,000 had regular medical-expense insurance; and 13,000,000 had the newest form, major medical expense insurance. In addition, 63 per cent of the civilian labor force—some 43,000,000 people—had protection against wage loss due to disability.[2]

The volume of health insurance in insurance companies has tripled during the past 10 years, and is 2,300 per cent larger than in the depression-low of 1933. This quantitative growth has been equalled by a qualitative improvement in the benefits underwritten. Both expansion and improvement have stemmed from the widespread experimentation of individual insurers, stimulated by the open, free and keen competition that exists among the more than 800 insurance companies and the nearly 300 service plans. This insistent drive to insure an ever larger number of people, and to give them more nearly adequate protection is uniquely characteristic of private enterprise. The competition is such that once an insurer, through experimentation, develops a better benefit or a better method, it is rapidly emulated and becomes generally available.

YET, IMPROVEMENTS CAN BE MADE

An honest appraisal of the situation will convince anyone that the American system of private practice, voluntary hospitals and private financing of health care is working successfully today. This certainly does not mean that there are no problems to be solved—urgent problems that must be solved if the voluntary private system is to continue enjoying the support of most Americans. Since many of these problems are shared by doctors, hospitals and insurers, sound answers for them depend upon their ability to work together.

No matter of mutual concern is more urgent than the rising cost of health care. No element in the Bureau of Labor Statistics cost-of-living index has risen so much as have health-care costs since

World War II. Though physicians' fees have lagged behind the aggregate index, the hospital, drug and miscellaneous costs have shot upward. We must realize that even in a prosperous America, it is possible for health care to be priced out of the reach of the mass of people. Should this develop, the pressure for government assumption of all health-care responsibilities could become irresistible.

As partners in a voluntary enterprise, what can we do to restrain the costs of health care without adulterating its quality. It is with some hesitation that I offer suggestions on this score to the medical profession, not only because I am sensitive to the very proper resentment with which medicine regards any attempt at lay intervention, but because I have a deep appreciation of the incisive understanding of the problems of medical economics which is possessed by the leaders of organized medicine. If I may be permitted an observation, I can propose nothing that would be more effective in medicine's effort to abate the costs of health care than a scrupulous adherence by every physician to the principles and admonitions enunciated by the discerning and devoted men who are the leaders of your profession. They recognize that upon well-nigh perfect performance may depend medicine's defense against the attacks of those who would supplant the judgment of the profession with the dictates of government or private lay groups.

As a layman who respects the integrity of medicine, I am alarmed at the insistent proposals of some lay groups for the imposition of economic controls upon your practice. Economic controls quickly have their effects on the quality of medical care. Not long ago, I heard a well-worded and considered discussion of this problem by one of the younger leaders of organized labor.[3] He was critical of the insurance business for the means by which it attempts to control cost, and his statement, in part, was as follows:

> [The insurance companies follow] . . . the old non-interventionist pattern, imposing . . . [controls] primarily on only one of the parties concerned, the patient, and relying mainly on economic rather than direct medical controls. Generalized warnings to medical societies not to kill the goose that lays the golden eggs are too far removed from the actual setting of fees. It is not that labor resents having the controls put on the patient's back, but that whatever economic incentives are put on him, the patient cannot effectively police health care. He has neither the knowledge nor the authority. And labor fears that for lack of adequate controls, the cost of this new coverage [major-medical insurance] may get out of hand in a few years and that pressures will arise to retreat from more comprehensive coverage—not because it was truly uninsurable, but because proper safeguards were not taken.

The same speaker summed up his argument for the imposition of controls with the following sentence:

> If physicians are not really ready to accept such controls, then in spite of the best intentions of third party carriers, in spite of the soul-searching meetings with medical societies and in spite of the strongest motivations that may be placed on the insured, voluntary health insurance probably cannot succeed in providing adequate protection at reasonable cost.

Though there have been occasional distressing deviations by individual physicians, insurance companies are confident that the American medical profession will adhere, in the future as it has in the past, to the highest ethical standards and will join vigorously in the fight to prevent further increases in the costs of health care. Certainly insurance companies are disinclined to interfere in the practice of medicine or to seek the controls that some lay people assert are necessary. We believe that voluntary cooperation among doctors, hospitals and insurers will be productive.

TASKS FOR DOCTORS TO UNDERTAKE

There are many things that can be done to make health-care costs supportable. The doctor, because he controls the course of treatment, can largely prevent over-utilization, whether of medical treatment or hospital occupancy. Over-prescription or extravagant care adds to the total health-care burden. We well know the pressures that patients sometimes put upon their physicians to authorize unnecessary hospitalization, to undertake treatment of questionable necessity, or through an adjustment of the fees charged, to circumvent the deductible provisions in the insurance contract. That nearly all physicians stand firm against such abuses is a tribute to their individual integrity and to the ethics of their profession. Yet, each of us can recall instances of patent over-utilization, over-prescription or extravagance.

One recent survey indicated that 25 per cent of the patient days spent in general hospitals by Michigan Blue Cross subscribers constituted unnecessary hospitalization.

Our traditional respect for the profession of medicine is epitomized by the fact that it is the only profession or business permitted to establish its own charges almost entirely without the policing effect of competition or the imposition of public regulation. Because the individual physician is largely unfettered in setting charges for his services, rigid self-discipline is of utmost importance for the preservation of private practice.

We hope, and we believe, that the vast majority of physicians have not been influenced in the charges they make simply by knowing that an insurer will pay all or part of them. The position of medicine in this matter was taken by the House of Delegates of the American Medical Association at its 1954 clinical session, when the House stated:

> It should be remembered that insurance does not create any new wealth. It merely assists in conservation. Insurance may conserve the ability of an insured person to fulfill his normal financial obligations. It does not enhance his ability to discharge added responsibilities if they are in the form of increased fees. To use insurance as an excuse to revise professional fees upward is but to contribute to the defeat of its purpose.

You have recognized the validity and importance of that statement. In your effort to prevent unwarranted increases in fees, you have established grievance committees to which you have invited insurers and patients alike to bring any case that seems to involve inappropriate charges. The insurance business salutes you for undertaking conciliatory and, if necessary, disciplinary action in situations of this kind. Happily, the instances of gross over-charging are relatively few.

A problem that concerns us more is the discernible tendency by a minority of physicians to add *slightly* to their usual fees when insurance benefits are payable. If even as little as $5 is added to each one of the millions of claims paid by insurers each year, the total is a staggering figure. No one can condone such an addition to the costs of health care.

You can help hold the line against rising health-care costs not only by preventing over-utilization and over-prescription, and in maintaining normal charges when the patient is insured, but also by aggressively encouraging the development of more economical treatment methods, including the use of less-costly facilities, particularly for the aged and the chronically ill. Costs can be reduced by moving patients out of the general hospitals and placing them in nursing homes or geriatric facilities. More effective scheduling of patients in and out of the hospital can result in substantial savings. Your profession can continue to emphasize early diagnosis to prevent later costly disability and can perfect rehabilitation technics to restore patients to economic usefulness.

HOSPITALS CAN MAKE HELPFUL CHANGES

For their part in our cooperative effort to reduce costs, the hospitals can seek out and employ methods that are less wasteful of the time and attention of skilled, highly trained and necessarily expensive personnel. Because in excess of 75 per cent of a hospital's costs are wages, most institutions could profitably introduce all manner of proved labor-saving devices. I hope it is not unreasonably critical of me to suggest that too few of our hospitals use sound cost-accounting methods. Many fine institutions have an accurate knowledge of their costs and keep them under continuous scrutiny; but they are the exception rather than the rule. We believe that hosptials are making a real contribution to the attack on rising costs by upgrading the professional qualifications of their administrators, but we need many more adequately trained men and women to assume the highly complicated administrative responsibilities in our hospitals. We believe that hospitals can do a great deal to allay criticism of their charges through the elimination of discriminatory rates and discounts. Our sense of equity is affronted when some patients are required to pay higher rates than are other people for the same care and accommodations, simply because of preferential arrangements which some segments of the population enjoy. Hospitals should aggressively seek more adequate compensation from local government for care furnished to the indigent. In too many communities, the paying patient subsidizes the cost of the indigent's care.

INSURERS HAVE THINGS TO DO

We insurers can and will do our part to abate rising health-care costs. We can seek to expand the coverage which employs the sound insurance fundamentals of the deductible and coinsurance provisions. All of us are familiar with the deductible clause in automobile collision insurance. It requires the insured to bear the first few dollars of any loss. Without a deductible clause in health insurance, the insurer must collect a premium adequate to pay not only the cost of the recurrent, trifling losses from which we all suffer, but in addition, the cost of administering this dollar-swapping kind of benefit. Failure to include a deductible appropriate to the economic status of the insured contributes substantially to over-utilization. When the deductible is used, the insured's premium dollar is conserved and applied to provide more adequate protection for the financially crippling, serious and relatively infrequent injuries and illnesses.

In voluntary health insurance, the coinsurance provision exerts a helpful control against abuse, and is therefore a brake on costs. Coinsurance requires the insured to bear a part of every element in the cost of his care. Thus, in major-medical insurance the insurer pays 75 or 80 per cent of the total expense incurred above the deductible amount, and the insured pays 20 or 25 per cent of the cost of all care received. In such broad, unrestricted coverages as major-medical insurance, which may require the reimbursement of expenditures ranging up to $20,000 for a single disability, the need for an extravagance preventive is apparent.

We believe that health insurers can contribute to cost reduction by emphasizing coverages such as major-medical insurance, in which hospital confinement is not a prerequisite for payment of benefits. Doubtless many people who have coverages of other sorts become hospital bed patients simply because their insurance covers only those expenses incurred during hospitalization.

We are cognizant also of the increasing load of paper work placed on doctors and hospitals, as more and more Americans purchase insurance. The multiplicity of claim forms has become bur-

densome for most practitioners. To remedy this situation, the insurance companies, working through the Health Insurance Council and in close cooperation with the American Medical Association and the American Hospital Association, are promoting the use of standardized claim forms. These, in time, will substantially ease the necessary work of completing proofs of loss.

CLOSER COOPERATION IS NECESSARY

Doubtless there are other promising avenues for an attack on rising health-care costs. We must seek them out, and exploit them promptly and vigorously. In this endeavor, doctors, hospitals and insurers must work together. Dr. David Allman, then president-elect of the American Medical Association, elicited an enthusiastic response when, last year, he urged the health insurance business to intensify its program of getting acquainted with and working with doctors. Acting promptly on Dr. Allman's suggestion, the Health Insurance Council arranged a meeting between the officers and Board of Trustees of the AMA and a representative group of insurance-company presidents and medical directors. The Health Insurance Council is a federation of trade associations representing companies issuing 90 per cent of the health insurance in force in the United States and Canada.

The meeting of the AMA and HIC representatives recognized the mutuality of the problems involved in rising health-care costs, and expressed a determination to resolve them in the public interest through more effective cooperation. Following that meeting, the Health Insurance Council undertook to organize a committee in each state to work with state medical associations, county medical societies and hospitals. The program is now well advanced. Here in Iowa, an excellent committee under the chairmanship of Mr. Kenneth Barrows is in action. In his "Secretary's Letter" for August, 1957, Dr. George Lull urged the AMA's constituent associations and their component societies to establish special committees to meet with representatives of the Health Insurance Council. We believe that out of such local consultations will emerge better analyses of the problems which physicians and insurers share, and more effective plans of action. Jointly, we can create a better public understanding of what voluntary health insurance is, what can be expected of it and what its limitations are. With the help of doctors and hospitals, we insurers believe we can improve the quality of the protection that we offer.

Insurers have no desire to set or influence future patterns of medical care; but it is obvious that we must know what those patterns are to be if we are to insure their costs. Insurers would welcome a uniform pattern for payment of the charges for the services of pathologists, anesthesiologists and roentgenologists. In some areas these services are now charged as a part of the hospital bill. In others, they are billed directly by the doctor. Insurance companies can provide adequate protection under either system, but it is desirable that organized medicine clarify the preferred handling. In the same vein, we are certain that we can do much to expand the protection offered the patient who suffers from mental or nervous disorders, if psychiatrists will assist us with definitions and standards that will facilitate the task of distinguishing between elective and required psychiatric treatment. Together, insurance and medicine can solve the remaining problems of coverage for the physically-impaired risk.

We are already making hopeful progress in protecting the aged with insurance that is paid up at the time of retirement, or which permits a continuance of the employee in the group after his retirement. We can stand together in vigorous support of adequate public-assistance funds for the care of the indigent. Attempting to insure their health care only adulterates the insurance mechanism and increases the total cost to the community. The individual practitioner, because of the high esteem in which he is held in his own circle of influence, can and must be an ambassador of enlightenment in all of these matters.

We who know voluntary health insurance and the private practice of medicine believe in their inherent capacity to provide an adequate measure of quality care, soundly financed, for nearly all of the American people. As we succeed in this work, through our joint efforts, we shall strengthen the whole social and economic structure upon whose preservation depends the maintenance of those freedoms and opportunities that we conceive to be the essence of the American way of life.

REFERENCES

1. Wickard v. Filburn, 317 U.S. 111, 1942.
2. Health Insurance Council: Survey of Voluntary Health Insurance. New York, 1957.
3. Pollack, Jerome: Health Insurance Today and Tomorrow, A Labor View. Group Insurance Forum, Health Insurance Association of America, Chicago, 1958.

OBESITY IN CHILDREN

Obesity in infants, particularly when it recurs in adolescence, often is a sign of future obesity, Dr. R. S. Illingsworth, of Sheffield, England, declared in an article which appeared in the July issue of the JOURNAL OF PEDIATRICS. "Thus," he said, "if obesity developed during infancy, even though it disappeared by the age of two or three years, a special watch should be kept in later years for a recurrence of the problem."

The family history is important. "Studies have shown," he said, "that less than 10 per cent of children of parents of normal weight are obese, as compared with 50 per cent if one parent is obese and 80 per cent if both parents are obese."

Excessive intake of food (particularly sweets and in-between-meal and evening snacks), metabolic and hormonal factors, decreased output of energy and hereditary factors are the primary causes of obesity in infants and children, Dr. Illingsworth said.

Short Courses at the S.U.I. College of Medicine

ANESTHESIA FOR THE PART-TIME ANESTHETIST

Following is the program for a course in Anesthesia for the Part-Time Anesthetist, which will be presented at the S.U.I. College of Medicine on October 8-9. It is designed specifically for the doctor who does not devote full time to the administration of anesthesia or who has not had formal postgraduate training in the subject.

The Iowa Academy of General Practice will allow eight hours of Category I credit for this course.

Wednesday, October 8

8:30 a.m. Registration

9:00 a.m. "Spinal and Epidural Anesthesia: Indications, Contraindications and Management"—Jay Jacoby, M.D., director of the Department of Anesthesiology, Ohio State University

9:45 a.m. "Spinal and Epidural Anesthesia: Complications During and After"—Leo DeBacker, M.D., assistant professor of anesthesiology, S.U.I.

11:00 a.m. "Obstetrical Anesthesia"—Dr. Jacoby

11:40 a.m. "Infant Resuscitation"—Jack Moyers, M.D., associate professor of anesthesiology, S.U.I.

1:30 p.m. "Endotracheal Intubation—What? When? Why?"—W. K. Hamilton, M.D., professor and chairman of anesthesiology, S.U.I.

2:15 p.m. "Anesthetic Equipment for the Small Hospital"—Dr. Moyers

3:00 p.m. "Emergency Resuscitation"—Dr. Jacoby

6:30 p.m. Social hour and dinner, followed by panel discussion of problem cases (Registrants are requested to bring with them specific problem cases and situations for discussion by panel members)

Thursday, October 9

9:00 a.m. "Preoperative Regimens That Require Special Management"—Charles B. Pittinger, M.D., associate professor of anesthesiology, S.U.I.

9:45 a.m. "Muscle Relaxants"—Dr. Jacoby and Dr. Pittinger

11:00 a.m. "Problems of Immediate Postoperative Period"—Dr. Hamilton

RADIOLOGY

The Iowa Radiological Society, the Iowa Division of the American Cancer Society and the staff of the S.U.I. Department of Radiology will sponsor a conference for Society members and other physicians who are interested in the general problems of radiology, in Iowa City on October 10 and 11.

A guest speaker will discuss current problems in radiology, and the program in general will emphasize important aspects of radiologic diagnosis and therapy. There will be a discussion of the radiographic findings of the upper gastrointestinal tract, with emphasis on the clinical significance of enlargement of the duodenum. An interesting symposium on fractures in children has been arranged. In addition, there will be a discussion of current problems in x-ray therapy. On the evening of October 10, there will be a dinner for members of the Iowa Radiological Society.

October 11 will be "Dad's Day" at S.U.I., and there will be a football game between Iowa and Indiana. Physicians who wish tickets for the game should request them and enclose payment ($4 each) when they send in their advance registrations for the radiology meeting.

CLINICAL PHYSICAL MEDICINE AND ATHLETIC INJURIES

This course will be presented by the Division of Physical Medicine, the Department of Orthopedics and the Iowa chapter of the Arthritis and Rheumatism Foundation.

Friday morning will be devoted to a clinical discussion of current problems of arthritis and gout. Two outstanding guest speakers will discuss this problem, along with members of the S.U.I. staff in orthopedics.

Friday afternoon will be devoted to a clinic demonstrating the various technics and modalities employed in physical medicine. There will be a brief review of certain clinical problems such as backache, with demonstrations of the various exercises employed. There will be a discussion of the use of ultra-sound, crutch and cane walking, and heat and diathermy.

Saturday morning will be devoted entirely to a demonstration of diagnosis, treatment and prevention of athletic injuries. There will be a demonstration of the treatment of sprains, knee injuries and fractures, and the use of preventive taping.

The Iowa-Notre Dame football game is to be played at Iowa City on Saturday afternoon, November 22.

LATER COURSES

Surgery, December 9, 10 and 11
Obstetrics and Gynecology, January 14
Refresher Course for the General Physician, February 17, 18, 19 and 20
Neurology, March 19
Cardiac Auscultation, April 8 and 9
Alumni Day, June 12 and 13

Scientific Articles

Hazards of the Newborn

ROBERT C. FAIRCHILD, M.D.

MISSION, KANSAS

In 1955, the death rate among infants two weeks of age or less in the United States was still as high as 19 per 1,000 live births.[1] Ninety per cent of those deaths occurred during the first week of life, and one-half took place within the first 24 hours.[2] It is obvious, then, that loss of life during the neonatal period should be one of the principal concerns of pediatricians.

PREMATURITY

One of the outstanding hazards to the newborn is to have been born prematurely. Such infants, who constitute between seven and nine per cent of the total, have a neonatal mortality of 15 per cent and constitute 36 per cent of perinatal deaths.[3, 4] Prematurity, indeed, is such an important cause of death in the neonatal period that there have been extraordinarily intensive efforts to improve the management of these infants.[5, 6]

The environment of the premature infant should be kept as favorable to his survival as possible. His body temperature should be maintained at 96-97°F., rectal, through control of the environmental temperature and humidity. A humidity of 80-90 per cent is ideal, but 60 per cent will suffice. Sudden changes in environmental temperature should be avoided, and the infant should be subjected to a minimum of handling.

Oral feeding should be instituted only after clinical edema has subsided, which may be from 24 to 72 hours after birth. The use of gavage feedings with an indwelling polyethylene catheter in the stomach minimizes handling of the infant by the nursing personnel, but the baby must be watched closely for signs of aspiration, and his head must be elevated. The composition of the formula must be such as ultimately to provide the infant 125-150 ml. per kilogram per day and 120 calories per kilogram per day. Initially a relatively dilute formula is offered, and the strength is gradually increased as the infant can tolerate it.

Since it is generally conceded that the premature infant has poor fat absorption, a low-fat formula such as Olac® is recommended. Wolff[5] recommends the administration of 16 mg. of elemental iron to the premature infant daily after discharge from the hospital, and increased amounts as the infant grows. He regards these increasing amounts of iron—up to 5-10 mg./Kg./day at the age of six months—as essential to optimal hematopoiesis. Transfusions of whole blood or massive vitamin dosages are rarely needed.

The routine administration of oxygen to the premature infant has been discontinued since the establishment of the etiologic role of oxygen in retrolental fibroplasia. Oxygen is indicated only for cyanosis, and then the concentration in the environment is kept under 40 volumes per cent as determined by an oximeter.

There is no general agreement on the use of antibiotics prophylactically in the premature infant. Since systemic infections may be relatively asymptomatic in these babies, it is wise to give this protection if there is any possibility of exposure to pathogenic bacteria. It is advisable to use chloramphenicol, 100 mg./Kg./day orally, or 150 mg./Kg./day intramuscularly in divided doses, with or without erythromycin, 50 mg./Kg./day orally. Sulfadiazine should be avoided because the use of this drug has been seen to parallel a heightened incidence of kernicterus in prematures with jaundice.

POSTMATURITY

Postmaturity, or the "placental dysfunction syndrome" is felt by Clifford[4] to be almost as serious a hazard to the newborn as is prematurity. He states that postmaturity accounts for 30 per cent of all perinatal deaths.

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This syndrome occurs primarily in primiparas over 26 years of age who have had gestations of 300 days or more. The infant, if mildly affected, is thin with apparent weight loss and dry peeling skin. If more severely affected, a green staining of the amniotic fiuid, membranes, skin and cord can be noted. In most severe cases, the skin and nails are bright yellow, and the cord is yellow-green. Since 85 per cent of these infants die *in utero*, only a few of them become pediatric problems.

This clinical entity is explained on the basis of placental dysfunction, which takes place when the period of gestation exceeds 280 days.[7] The loss of weight is due to degeneration of the placenta, with a consequent utilization by the infant of his own fat stores. The diminished permeability of the placenta to oxygen reduces the fetal oxygenation, and with relaxation of the anal sphincter there is a release of meconium which stains the skin, cord and membranes. With severe fetal anoxia, intrauterine death or postnatal dyspnea and subsequent death may occur.

The pediatrician's task in the care of the postmature infant consists of the alleviation of respiratory distress secondary to anoxia.

RESPIRATORY PROBLEMS IN THE NEWBORN

Respiratory distress at birth—either apnea or hypopnea—is usually due to central nervous system depression from narcosis, trauma or anoxia. If it is known to be due to narcosis from morphine of morphine derivatives, the respiratory depression is alleviated through the use of N-allyl-normorphine (Nalline®), 0.2 to 0.5 mg. intramuscularly.

In any instance of respiratory distress, an adequate airway must be established. One can accomplish this most easily by using nasopharyngeal suction with a rubber-bulb aspirator and postural drainage. The use of mouth-to-mouth insufflation is easy, harmless and effective. Direct laryngoscopy and endotracheal suction may be life-saving when done by qualified personnel, but passage of an endotracheal catheter may contribute to the respiratory embarrassment when performed blindly and hastily. Intermittent positive-pressure may be used, but not exceeding a pressure of 20 cm. H_2O for a maximum of five to 10 minutes. The administration of oxygen when the infant is cyanotic is warranted. Hypothermia, intragastric oxygen and the Bloxsom respirator have not gained widespread acceptance.

The respiratory distress which is persistent after birth or appears within the first few hours of life accounts for 50 per cent of neonatal mortalities. The major cause of these deaths is hyaline membrane disease.[1] This condition occurs primarily in premature infants, those delivered by cesarean section, those born of mothers with diabetes or toxemia of pregnancy, and those who had intrauterine asphyxia from any cause. The affected infant develops respiratory distress at or shortly after birth, and usually has an expiratory grunt, with retraction, dyspnea and cyanosis.

Miller,[8] in his studies of respiratory insufficiency, has divided newborn infants into three groups based on their respiratory rates. Group I infants start breathing at a rate of approximately 40 per minute, and maintain that rate with little variation. Group II infants start breathing more rapidly —usually about 60 per minute—and subsequently decrease the rate to about 40 per minute. Group III infants are those who start breathing at a rate of approximately 40 per minute, but increase the rate to 60 per minute or higher during the first 36 hours of life. All of the infants with severe respiratory insufficiency in Miller's series fell into the third of those groups.

The diagnosis of hyaline membrane disease is established largely by excluding all other abnormalities which might account for the persistent respiratory distress, such as tracheo-esophageal fistula, diaphragmatic hernia or congenital atelectasis. This elimination is facilitated by radiographic studies of the infant, as well as by clinical acumen. Bilateral diffuse increased reticulogranularity has been described as a common finding in the chest films on infants with early hyaline membrane disease.[9, 10] Later, the chest x-ray may show frank generalized atelectasis.

The optimal treatment of the condition is supportive, and includes the maintenance of an adequate airway, the administration of oxygen to relieve cyanosis and the administration of prophylactic antibiotics.

It is difficult to make a prognosis regarding infants with hyaline membrane disease, since one doesn't know how many with the disease survive. All deaths in Miller's series of infants with respiratory insufficiency were among those whom he classified as Group III. Those whose respiratory rates showed no tendency to increase after the first hour of life were found to have excellent prognoses. The routine counting and recording of respiratory rates in the nursery for all infants with respiratory distress during the first four days of life will aid the physician considerably in determining each infant's prognosis.

PROTECTING THE NEWBORN FROM INFECTION

Infection in the newborn is the primary cause of 16 per cent of neonatal deaths, and a contributory factor in an additional 27 per cent.[11] The commonest organisms found in newborn infections are the Staphylococcus pyogenes, Streptococcus pyogenes, Escherichia coli and Candida albicans.

Infections due to hemolytic coagulase-positive Staphylococci are most commonly found in the skin, soft tissues, bone, conjunctiva, lung and bowel. The hemolytic Streptococcus usually infects the umbilical cord and may invade the blood stream, producing septicemia. Escherichia coli may be responsible for meningitis, pneumonia or sepsis. Lesions due to Candida albicans are usually limit-

ed to the mouth, esophagus and skin, and may be potentiated by the use of broad-spectrum antibiotics.

The best treatment for infection in the newborn is preventive. Proper nursery facilities and strict nursery technics are essential to prevent initial infection and cross-contamination of infants. Early diagnosis of infection in the newborn is essential, and immediate isolation of the infected infant is desirable.

Antibiotic treatment should be based on a bacteriologic identification of the responsible organism, if at all possible. Antibiotics should also be used in the prophylactic treatment of the potentially infected mother, as well as her infant, in a case of premature rupture of the membranes. Discretion must be used in the administration of antibiotics to newborns, but once the antibiotic has been started, it should be given for at least four days to avoid the development of a resistant organism.

With more nearly complete understanding of the blood incompatibilities and better technics for exchange transfusion in infants, the numbers of babies who die from erythroblastosis fetalis, ABO and other such difficulties in the neonatal period are gradually being reduced. Physicians in charge of the prenatal care of mothers now understand that Rh typing should be done routinely on all pregnant women. On those who are Rh negative, an initial quantitative titer should be done during the first prenatal visit, and this procedure should be repeated from two to four weeks prior to the expected date of confinement. If the titer is rising, or if the mother has previously given birth to an erythroblastotic infant, arrangements should be made for delivery in a hospital with competent personnel and equipment for an exchange transfusion. Although, with our present knowledge, the indications for an exchange transfusion are not absolute, it is more likely that one is necessary (1) if the mother has previously had an affected baby; (2) if the maternal titer has risen to 1:64 or above; or (3) if the affected infant is premature.

At present it is felt that any infant in whom the indirect bilirubin exceeds 10 mg. per cent in the first 24 hours, or 20 mg. per cent at any time, regardless of the nature of the incompatibility in the blood, should be given an exchange transfusion to prevent the development of kernicterus. Overend's series of 46 exchange transfusions in a two-year period, 1955-1957, at the University of Kansas Medical Center[12] revealed that only 44 per cent were performed because of incompatibilities due to the Rh factor. ABO incompatability was the reason for 28 per cent, and in the remaining 28 per cent of cases, the incompatability was not known. These broader indications for exchange transfusions have resulted in the procedure's being done more frequently, but with a decreasing incidence of kernicterus.

There are other conditions, less important than those discussed, which contribute to infant morbidity and mortality. Maternal diabetes is associated with a high incidence of stillbirths and congenital defects in the infant. The excessive size of the infant of a diabetic mother may complicate labor. Toxemia and eclampsia in the mother, since there is an increased frequency of antepartum hemorrhage and placental infarction, are associated with a three-fold increase in the number of stillbirths and twice as many premature births as in uncomplicated pregnancies. In spite of better hospital facilities and surgical technics, cesarean section still produces an increased morbidity and mortality in infants. All three of these conditions predispose to hyaline membrane disease in the infant, and thus these babies must be given especially close observation for respiratory distress during their first few days of life.

Throughout the world, efforts are being made to eliminate the obstacles which the newborns must surmount if they are to survive. Most larger hospitals have instituted perinatal conferences and hold them at regular intervals in an attempt to evaluate the causes of infant deaths and to effect a substantial reduction in perinatal mortality. Investigation into the etiology of prematurity and into the physiology of the newborn is progressing in this country at a rate which promises to extend medical knowledge to the point where many yet-unborn infants who now would die may in the future live.

REFERENCES

1. Medovy, H., and Briggs, J. N.: Reduction in neonatal mortality; present and future. Ped. Clin. North America, 259-277, (May) 1958.
2. Gold, E.: Perinatal mortality. J.A.M.A., **159**:224-247, (Sept. 24) 1955.
3. Smith, C. A., and Cook, C. D.: Special problems of newborn; summary of roundtable discussion. Pediatrics, **15**:348-352, (Mar.) 1955.
4. Clifford, S. H.: Postmaturity with placental dysfunction; clinical syndrome and pathologic findings. J. Pediat., **44**:1-13, (Jan.) 1954.
5. Day, R. L., and Silverman, W. A., coordinators: Premature and newborn infants; report of seminar. Pediatrics, **20**:-143-154, (July) 1957
6. Silverman, W. A.: Care of premature infant; report of round table. Pediatrics, **21**:857-859, (May) 1958.
7. Kunstadter, R. H., and Schnitz, S. E.: Postmaturity and placental dysfunction syndrome. J.A.M.A., **161**:1551-1555, (Aug. 18) 1956.
8. Miller, H. C., and Conklin, E. V.: Clinical evaluation of respiratory insufficiency in newborn infants. Pediatrics, **16**:-427-436, (Oct.) 1955.
9. Bauman, W. A., and Nadelhaft, J.: Chest radiography of prematures; planned study of 104 patients including clinical-pathologic correlation of respiratory distress syndrome. Pediatrics, **21**:813-824, (May) 1958.
10. Feinberg, S. B., and Goldberg, M. E.: Hyaline membrane disease; preclinical roentgen diagnosis; planned study. Radiology, **68**:185-192. (Feb.) 1957.
11. Hardyment, A. F.: Control of infections of newborn infants. Ped. Clin. North America, 287-300 (May) 1958.
12. Overend, D. S.: Exchange transfusions; experiences at University of Kansas Medical Center over two-year period. J. Kansas M. Soc., **59**:83-89, (Mar.) 1958.

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A Review of Q Fever

With a Report on a Recent Human Case in Iowa

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IOWA CITY

In the relatively brief span of 21 years, Q fever has progressed from the realm of medical obscurity to that of public-health and military significance in 51 countries on five continents.

Q fever was first reported by Derrick[1] in 1937. Following the investigation of an outbreak of an acute febrile illness among meat-plant workers in Brisbane, Australia, in 1935, he succeeded in characterizing the clinical disease and isolating the etiologic agent in guinea pigs. Because the disease was not well understood and therefore posed a "query," he named the malady Q fever. The organism which he isolated was named Rickettsia burneti.

Davis and Cox,[2] in 1938, isolated a rickettsia-like agent from ticks of the species Dermacentor andersoni collected in the vicinity of Nine Mile Creek, Montana. This organism, subsequently named Rickettsia diasporica, was found to be pathogenic for guinea pigs and capable of passing Berkefeld N and W filters. Further studies by Parker and Davis[3] demonstrated transovarian infection with this agent in Dermacentor andersoni.

In the course of culturing the Montana tick rickettsia (Rickettsia diasporica) in eggs, an accident resulted in the infection of one of the laboratory personnel. Investigation of that case touched off a series of events which led to the identification of the Montana tick rickettsia as similar, if not identical, to Derrick's Australian Q fever agent, R. burneti.[4, 5]

Further studies revealed the Q fever rickettsia to be unique in several respects, in comparison with the type organism R. prowazeki. The new organism was filterable, considerably more resistant to chemical and physical agents, and incapable of inducing the production of agglutinins to the Proteus organisms (Weil-Felix reaction). Furthermore, human beings infected with the new agent did not exhibit the skin rash typical of other rickettsial diseases. Consequently, the name of the Q fever rickettsia was officially changed to Coxiella burneti.[6]

Hesdorfer and Duffalo,[7] in 1941, reported the first naturally-occurring U. S. case of Q fever from Montana. The first recognized outbreak in the United States occurred in 1946 and involved a number of packing house workers in Texas.[8] The second explosive outbreak occurred in a Chicago packing plant during that same year.[9] Young,[10] in 1948, first reported on the occurrence of endemic Q fever in this country. His investigations, conducted in the region of Artesia, California, resulted in the documentation of a number of human cases and in the establishment of a regional U. S. Public Health Service laboratory devoted to the study of Q fever.[11]

Q FEVER IN ANIMALS

The isolation of C. burneti from several species of ticks suggested a tick vector as the natural method of Q fever transmission.[3, 12] Derrick and others[13, 14] studied the Q fever transmission cycle in nature and succeeded in demonstrating a relationship between bandicoots (small Australian bush rodents) and ticks. Epidemiologic investigation of reported human cases served to point out a relationship between human infection and association with cattle. An infection-transmission cycle involving infected ticks, bandicoots and cattle was postulated by Derrick.[15] Man was thought to become infected by tick bite or by contact with infectious tick feces in the form of dust. On the basis of preliminary epidemiologic evidence, Huebner *et al.*[16] investigated dairy cattle as a possible reservoir of human infection. They were able to isolate rickettsia from the milk of suspect infected dairy cows.

Subsequent studies have demonstrated the domestic ruminant species—cattle, sheep and goats—to be naturally susceptible to Q fever infection.[17-19] The fetal membranes and post-parturient vaginal discharge of Q fever infected domestic ruminants are highly contaminated with C. burneti.[20, 21] That such infectious material may serve to contaminate the environment has been demonstrated by air-sampling studies in which viable rickettsia have been recovered from air in and about barns and dairies known to harbor infected animals.[22, 23] The ability of this organism to withstand dessication facilitates environmental contamination by means of rickettsia-laden dust.

All available evidence indicates that Q fever infection in the domestic ruminant species is completely asymptomatic.* Q fever infection in the

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* Recent Russian literature reports the occurrence of clinical symptoms in the bovine due to Q fever infection.[24] The reported clinical syndrome includes rhinitis, conjunctivitis, depression, anorexia, abortion and decreased milk production. Q fever infected herds in that country are subject to strict quarantine, meat and milk coming from such animals are diverted from human consumption, and there are mandatory blood tests for such herds every 25-30 days until two successive negative tests have been passed. The existence of clinical symptoms in the bovine in Russia and the apparent absence of such symptoms in America and various other countries may be due to variations in rickettsial strains.

bovine appears to resemble brucellosis in several respects. Female animals are thought to be immune until sexually mature. The female reproductive system appears to be the seat of infection. The question of infection in male cattle is unresolved, but it seems that they contract it infrequently.

The following animals have been found to be susceptible to experimental infection: field mouse, house mouse, porcupine, chipmunk, cottontail rabbit, sparrow, pigeon and parakeet.[25] Likewise, domestic cats have been said to be susceptible to experimental infection.[26] Babudieri[27] reports serologic evidence of infection in geese, as well as in pigeons, dogs, cattle, sheep and goats. The disease has been reported to occur naturally in dogs having contact with infected sheep.[28] Serologic evidence of infection has been found in domestic fowl, particularly those associated with human cases.[29]

There is little doubt that cattle, sheep and goats constitute the main domestic animal reservoir of infection for man. The mechanism by which the disease is transmitted between individual domestic ruminants is not perfectly understood. The possibility that tick transmission may occur cannot be ignored. However, epizootiologic evidence indicates the existence of some transmission method in addition to possible tick vectors. Direct contact with infectious placental material and vaginal discharges may account for many or most animal infections. Likewise, indirect contact through the mechanism of contaminated dust may be the most common method of animal infection. Sheep have been experimentally infected by the respiratory (intratracheal) route.[30]

Q FEVER IN MAN

In man, Q fever is an acute, specific, often serious and occasionally fatal rickettsial disease,[31] characterized by an abrupt onset, fever, chills, severe headache, nausea and myalgia. The incubation period varies between 14 and 26 days. Tigertt, *et al.*,[32] on the basis of human volunteer studies, have demonstrated the length of the incubation period to be a function of the infectious respiratory dose; increasing doses result in a predictable exponential shortening of the incubation period.

Compared to the other common rickettsial diseases, Q fever is unique in that patients do not develop the typical rickettsial skin rash. Pulmonary symptoms, which usually develop by the fifth day, consist of a mild dry cough and chest pain. Pulmonary roentgenograms may show evidence of patchy consolidation, usually involving only a portion of one lobe. Under experimental conditions, 50 per cent of the human volunteer cases infected by the respiratory route developed roentgen evidence of pneumonia.[32] The course of the disease varies, in most cases, between 10 days and one month, the more protracted cases occurring among individuals of the older age group. Marmion *et al.*[33] have called attention to the occurrence of chronic Q fever. Human-to-human transfer has not been observed, either naturally or under experimental conditions.

Clinically, Q fever resembles and must be differentiated from brucellosis, influenza, infectious hepatitis, non-icteric leptospirosis, primary atypical pneumonia and psittacosis. Available serologic tests include agglutination and complement fixation procedures. Although the compliment fixation test is more commonly employed, antigenic differences between rickettsial strains have come to be recognized as a factor limiting the applicability of this test.[34] Agglutination tests include macroscopic tube and slide procedures. More recently, Luoto[35] has developed a capillary tube agglutination test which, because of its simplicity, speed and validity, promises to facilitate Q fever studies in many areas. C. burneti may be isolated from the blood of infected patients during the febrile period; less frequently, isolations can be made from urine or sputum.[36] The Weil-Felix test is not applicable to the serodiagnosis of Q fever.

Q fever is a disease of morbidity, rather than mortality. Few patients die of it, unless the case is complicated by secondary infection or preexisting heart disease.[33] Oxytetracycline therapy has been found highly effective for alleviating clinical symptoms and preventing relapses.[32] Because of the dangers of accidental infection for laboratory personnel, several investigators have attempted to develop and evaluate a human Q fever vaccine. Although studies are inconclusive, indications are that killed vaccine imparts a degree of active immunity that may last for a period of at least nine months.[32, 37]

Available laboratory and/or epidemiologic data suggest several methods of Q fever infection for man. Although C. burneti has been isolated from a variety of tick species,[2, 38-41] a history of tick bite or residence in a tick-infested area has not been demonstrated in the vast majority of human cases. Likewise, in the light of available epidemiologic evidence, the fact that isolations have been made from the body louse[42] does not support a hypothesis of naturally-occurring louse-borne Q fever.

However, there does exist a high correlation between human infection and association with livestock and/or their products. The demonstration that the domestic ruminant species are naturally susceptible to infection and shed large numbers of organisms during parturition, and further that such infected animals may effectively contaminate the environment with rickettsia in the form of dust, suggests that man may become infected by the respiratory route as a result of inhaling contaminated dust. Likewise, the fact that infected domestic ruminants intermittently shed large numbers of organisms in their milk suggests that man may become infected by consuming contaminated milk and other dairy products.

Beck *et al.*[43] conducted epidemiologic investigations of 300 human cases of Q fever in an endemic area of California. The results of that study sug-

gested three general hypotheses as to the mode of spread of the disease: occupation in the dairy or livestock industries; residence close to dairies or livestock yards; and household use of raw milk. Cases occurred throughout all seasons of the year, in both sexes, in various races and in individuals ranging from 3 to 75 years of age. Only 21 per cent of cases occurred in females, and the 20-59 year age group accounted for 91 per cent of cases. Occupational contact with livestock could account for 38 per cent of the cases; 45 per cent of the patients lived in close proximity to dairies or livestock yards; and 32 per cent of the patients reported having used raw milk. Thus, those three possible modes of spread could account for 78 per cent of the cases. The remaining 22 per cent cannot be ascribed to any known exposure.

As indicated by Marmion and Stoker,[44] the exact mechanism of infection depends on the specific environmental circumstances. Their investigations clearly demonstrate the existence of two distinct epidemiologic patterns. In an urban raw-milk-consuming area, cases occurred during all months of the year, equally between the sexes, and among persons with no history of farm or animal contact. In a rural area known to support infected sheep, the cases were most common at lambing and shearing periods. They occurred more frequently among men exposed to sheep and among consumers of pasteurized milk.

Several investigators have studied the effect of pasteurization upon milk contaminated with the Q fever rickettsia. The flash method (161°F.—15 sec.) of pasteurization has been found to eliminate C. burneti from contaminated milk.[45, 46] Vat pasteurization (143°F.—30 min.) has given inconsistent results. Rickettsia have been isolated from milk pasteurized by that means.[45-47] Other investigators have reported vat-pasteurized milk free of C. burneti.[44] Indications are that the limited number of organisms surviving vat pasteurization would constitute less than a minimal infectious dose for man.

Human Q fever has been reported from many parts of the world. The disease was a military problem in the Mediterranean area during World War II.[48-52] The German occupation forces in Greece were severely affected, and referred to the disease as the "Balkan grippe."[53] More recently, the disease has been reported by the French military in North Africa. Likewise, Q fever has been reported from Panama,[54] Germany,[55] Turkey,[56] Spain,[57] Yugoslavia,[58] Italy,[59] Australia,[60] England,[61] and North Africa,[62] among other places. Sporadic cases of Q fever have been reported in various parts of the United States, and endemic Q fever is recognized in California[43, 63] and Texas.

Recent reports of Q fever in Wisconsin,[65] Nebraska,[66] and Iowa[67] suggest that the disease may be establishing itself in new areas in this country.

REPORT OF A HUMAN CASE IN IOWA

According to the Iowa State Department of Health, until last spring only one case of Q fever had come to medical attention in Iowa.[68] That one, which occurred in 1935, involved a 49-year-old man who became ill approximately two weeks after returning to Iowa from Texas. On an epidemiological basis, the Department recorded his case as "imported."

In the course of Q fever studies at the S.U.I. Institute of Agricultural Medicine, 24 positive human blood specimens have been identified. The majority of them have been secured through the routine Q-fever screening of blood samples submitted to the State Hygienic Laboratory for brucella serology. The specimens were tested for Q fever by the Luoto capillary agglutination test.[35]

In only one instance did circumstances permit a complete epidemiological investigation. The patient is cited because he is thought to represent the first reported case of human Q fever in Iowa, and the epidemiological report is presented in detail. It was impossible to isolate the organism. Recognition of the occurrence of the disease in Iowa may result in more complete studies of future suspects.

The patient (F.F.) was a 78-year-old white man who, for the last 15 years, had lived with his wife in a small Iowa town. None of his four children lived at home. One daughter who lives in California had last been visited by the patient in 1955. A son who lives in another part of Iowa had seldom been visited by him. A second son, who is a gasoline truck driver, lives in the same village as the patient, and a third son (S.F.) operates a dairy farm 12 miles from the patient's home. For the last several years, the patient has routinely visited that son's farm for several days each week, and during those visits he participates actively in the farm chores, particularly those involving livestock. In addition, he has been a regular spectator at the weekly cattle sales held in his home town.

The man first became ill on or about February 21, 1958, with fever, a severe "chest cold" and a headache of several days' duration. He complained of those symptoms during his last visit to his son's farm, on February 22, and subsequently he was ill enough to remain in bed at home. Until March 1, he remained bedridden with fever and a "chest cold," and he complained additionally of abdominal pain and backache. On that day, he became nauseated and vomited, and his family then insisted that he seek medical attention, but the acute symptoms subsided between March 1 and 5.

He first visited his family physician on March 5, with complaints of backache, constipation and general malaise, and he said he hadn't been feeling well for a week. Bile salts were prescribed. He returned one week later (on March 11), and reported he felt somewhat better, but was still con-

FOR CORRECTION

stipated. His wife called the physician the next day, and indicated that the patient was acutely ill with severe abdominal pain and backache.

On March 12, when he was admitted to the local hospital, he had abdominal pain and backache, and the initial examination revealed a temperature of 101.5° F.; 5,000,000 red blood cells and 12,750 white blood cells per cubic millimeter; a hemoglobin of 14 Gm.; a sedimentation rate of 21 mm./hr.; and a few red blood cells and pus cells in the urinary sediment. On March 13, his temperature was between 101 and 101.8° F. He was constipated and was found to have intermittent atrial fibrillation. On March 15, an enema was administered, but the results were negative.

Sigmoidoscopic findings, in conjunction with the patient's abdominal disorder, prompted a diagnosis of "diverticulitis." A bowel movement followed the administration of castor oil on March 17.

A chest x-ray on the same day was essentially negative. A flat film of the abdomen revealed a 2.0 x 1.0 cm. vesical calculus.

A blood sample was drawn on March 17 and submitted to the Iowa State Hygienic Laboratory for brucella agglutination. That specimen was found to be negative for brucellosis, but positive for Q fever at a titer of 1:256. The patient was treated with gantrisin and sulfasuccidine, between March 12 and 17, and his temperature returned to normal during that time. He was referred to a urologist for removal of his vesical calculus.

He was admitted to another hospital on March 17, but removal of the vesical calculus was postponed for one week because of his "severe diverticulosis" and intermittent atrial fibrillation. In addition, a tentative diagnosis was made of abdominal aortic aneurysm. He was continued on sulfasuccidine, and had received no broad-spectrum antibiotics. Tetracycline was begun on March 24, and a cystolithalopaxy was performed. A repeat blood specimen collected just before the operation was positive for Q fever at a titer of 1:1024. He was febrile for several days following the removal of his vesical calculus, but his recovery was uneventful and he was discharged from the hospital on March 31. Unexpectedly, he died on April 20, presumably from a rupture of an abdominal aortic aneurysm. No post-mortem was performed.

Investigation revealed that the patient's son S.F. maintained approximately 15 horses and 11 dairy cattle on his farm, and although during the previous year he had purchased and sold a number of dairy cattle on a speculative basis, he had added no cows to his herd during the three months immediately preceding his father's illness. Mr. S.F., his wife and their four children consumed raw milk produced on the farm, as did the patient during his regular weekly visits. The available medical history on the S.F. family was not suggestive of Q fever, and the patient's wife likewise had no history of recent illness and continued in good health.

Blood and milk specimens were collected on March 24 from the 11 dairy cattle on the S.F. farm, and five of the bovine blood samples and four of the milk samples were found to be positive for Q fever in a low titer by the capillary agglutination test.[69] [70] Blood specimens were also collected from S.F., his wife and an uncle who frequently worked on the farm. The three human blood samples were Q-fever negative. The four S.F. children were absent and unavailable for testing.

CONCLUSION

Available clinical, laboratory and epidemiological evidence strongly suggests that this patient suffered an acute episode of Q fever on or about February 21, and that the acute clinical symptoms persisted for approximately 10 days. The demonstrated four-fold rise in the Q-fever antibody titer is considered to be of diagnostic significance.

Under the circumstances, it is impossible to fix the exact exposure date. The incubation period of Q fever varies between 14 and 26 days, and thus the patient's exposure could have occurred at any time between late January and mid-February, a period during which he visited his son's farm weekly. Likewise, it is possible that he was exposed while attending the local cattle sales during January and early February. Circumstances did not permit isolation of *C. burneti* from the patient or from the suspect cattle.

The information available on the S.F. dairy cattle does not permit any generalizations as to their Q-fever status at the time of the investigation. The Q-fever antibody titers demonstrated in the blood and milk of certain individual cattle indicate a definite exposure to Q fever. These animals may have been actively infected during the period of the patient's suspected exposure. Several of the cows with low serum titers were in the latter stages of gestation, and bovine Q-fever antibody titers have been observed to fall precipitously during that period.

The possibility that Q fever may have been a contributory cause of the patient's death is conjectural. Until more evidence concerning the pathogenesis of Q fever is available, evaluation of such cases will be impossible. However, Marmion *et al.*[33] have called attention to a possible relationship between Q fever—particularly chronic Q fever in elderly individuals—and vascular disease.

REFERENCES

1. Derrick, E. H.: "Q" fever, new fever entity; clinical features, diagnosis and laboratory investigation. M. J. Australia, 2:281-299, (Aug. 21) 1937.
2. Davis, G. E., and Cox, H. R.: Filter-passing infectious agent isolated from ticks; isolation from *Dermacentor andersoni*, reactions in animals and filtration experiments. Pub. Health Rep., 53:2259-2267, (Dec. 30) 1938.
3. Parker, R. R., and Davis, G. E.: Filter-passing infectious agent isolated from ticks; transmission by *Dermacentor andersoni*. Pub. Health Rep., 53:2267-2270, (Dec. 30) 1938.
4. Dyer, R. E.: Filter-passing infectious agent isolated from

ticks; human infection. Pub. Health Rep., **53**:2277-2282, (Dec. 30) 1938.

5. Dyer, R. E.: Similarity of Australian "Q" fever and disease caused by infectious agent isolated from ticks in Montana. Pub. Health Rep., **54**:1229-1237, (July 7) 1939.

6. Philip, C. B.: Comments on name of Q fever organism. Pub. Health Rep., **63**:58, (Jan. 9) 1948.

7. Hesdorffer, M. B., and Duffalo, J. A.: American Q fever; report of probable case. J.A.M.A., **116**:1901-1902, (Apr. 26) 1941.

8. Topping, N. H., Shepard, C. C., and Irons, J. V.: Q fever in United States; epidemiologic studies of outbreak among stock handlers and slaughterhouse workers. J.A.M.A., **133**:-813-815, (Mar. 22) 1947.

9. Shepard, C. C.: Outbreak of Q fever in Chicago packing house. Am. J. Hyg., **46**:185-192, (Sept.) 1947.

10. Young, F. W.: Q fever in Artesia, California. California Med., **69**:89-90, (Aug.) 1948.

11. Lennette, E. H.: Q fever in California. California Med., **69**:91-95, (Aug.) 1948.

12. Smith, D. J. W., and Derrick, E. H.: Studies in epidemiology of Q fever; isolation of 6 strains of *Rickettsia burneti* from tick *Haemaphysalis humerosa*. Australian J. Exper. Biol. & M. Sc., **18**:1-8, (Mar.) 1940.

13. Derrick, E. H., and Smith, D. J. W.: Studies in epidemiology of Q fever; isolation of 3 strains of *Rickettsia burneti* from bandicoot *Isoodon torosus*. Australian J. Exper. Biol. & M. Sc., **18**:99-102, (June) 1940.

14. Derrick, E. H., Smith, D. J. W., Brown, H. E., and Freeman, M.: Role of bandicoot in epidemiology of "Q" fever; preliminary study. M. J. Australia, **1**:150-155, (Jan. 28) 1939.

15. Derrick, E. H.: Epidemiology of Q fever. J. Hyg., **43**:-357-361, (Apr.) 1944.

16. Huebner, R. J., and others: Q fever studies in southern California; recovery of *Rickettsia burneti* from raw milk. Pub. Health Rep., **63**:214-222, (Feb. 13) 1948.

17. Lennette, E. H., Clark, W. H., and Dean, B. H.. Sheep and goats in epidemiology of Q fever in northern California. Am. J. Trop. Med., **29**:527-541, (July) 1949.

18. Jellison, W. L., and others: Q fever studies in southern California; natural infection in dairy cow. Pub. Health Rep., **63**:1611-1618, (Dec. 10) 1948.

19. Lennette, E. H., and others: Q fever in California; serologic survey of sheep, goats and cattle in 3 epidemiologic categories, from several geographic areas. Am. J. Hyg., **54**:1-14, (July) 1951.

20. Luoto, L., and Huebner, R. J.: Q fever studies in southern California; isolation of Q fever organisms from parturient placentas of naturally infected dairy cows. Pub. Health Rep., **65**:541-544, (Apr. 21) 1950.

21. Welsh, H. H., Lennette, E. H., Abinanti, F. R., and Winn, J. F.: Q fever in California; occurrence of *Coxiella burneti* in placenta of naturally infected sheep. Pub. Health Rep., **66**:1473-1477, (Nov. 9) 1951.

22. DeLay, P. D., Lennette, E. H., and DeOme, K. B.: Q fever in California; recovery of *Coxiella burneti* from naturally-infected air-borne dust. J. Immunol., **65**:211-220, (Aug.) 1950.

23. Lennette, E. H., and Welsh, H. H.: Q fever in California; recovery of *Coxiella burneti* from air of premises harboring infected goats. Am. J. Hyg., **54**:44-49, (July) 1951.

24. Rostovtseva, I. A.: Diagnosis of Q fever in domestic animals and measures for eradication of disease. Veterinariya, **33**:53-56, (July) 1956.

25. Parker, R. R., Bell, E. J., and Stoenner, H. G.: Q fever —brief survey of problem. J. Am. Vet. M.A., **114**:55-60, (Feb.); 124-130, (Mar.) 1949.

26. Gillespie, J. H., and Baker, J. A.: Experimental Q fever in cats. Am. J. Vet. Research, **13**:91-94, (Jan.) 1952.

27. Babudieri, B.: Ricerche sulla "febbre Q" in Italia. Rendic. Ist. super. san., **14**:389-429, 1951.

28. Mantovani, A., and Benazzi, P.: Isolation of Coxiella burnetii from Rhipicephalus sanguineus on naturally infected dogs. J. Am. Vet. M. A., **122**:117-118, (Feb.) 1953.

29. Babudieri, B., and Moscovici, C.: Infezione sperimentale e naturale da Coxiella burneti negli uccelli. Rendic. Ist. super. san., **15**:215-219, 1952.

30. Abinanti, F. R., Welsh, H. H., Lennette, E. H., and Brunetti, O.: Q fever studies; some aspects of experimental infection induced in sheep by intratracheal route of inoculation. Am. J. Hyg., **57**:170-184, (Mar.) 1953.

31. Huebner, R. J., Jellison, W. L., and Beck, M.D.: Q fever —review of current knowledge. Ann. Int. Med., **30**:495-509, (Mar.) 1949.

32. Tigertt, W. D., Benenson, A. S., and Shope, R. E.: Studies on Q fever in man. Trans. A. Am. Physicians, **69**:98-104, 1956.

33. Marmion, B. P., and others: Q fever in Great Britain; analysis of 69 sporadic cases, with study of prevalence of infection in humans and cows. Lancet, **1**:503-510, (Mar. 14) 1953.

34. Stoker, M. G., Page, Z., and Marmion, B. P.: Prob'ems in diagnosis of Q fever by complement-fixation tests. Bull. Wld. Hlth. Org., **13**:807-827, 1955.

35. Luoto, L.: Capillary-tube test for antibody against Coxiella burnetii in human, guinea pig and sheep sera. J. Immunol., **77**:294-298, (Nov.) 1956.

36. Smadel, J. E.: "Rickettsial diseases." In: Diagnostic Procedures for Virus and Rickettsial Diseases. New York, American Public Health Association, 1956, pp. 513-522.

37. Smadel, J. E., Snyder, M. J., and Robbins, F. C.: Vaccination against Q fever. Am. J. Hyg., **47**:71-81, (Jan.) 1948.

38. Smith, D. J. W.: Studies in epidemiology of Q fever; transmission of Q fever by tick *Haemaphysalis humerosa*. Australian J. Exper. Biol. & M. Sc., **18**:103-118, (June) 1940.

39. Giroud, P., and Jadin, J.: Essais d' isolement de souches de fièvre Q au Ruanda-Urundi du lait de vache, du cerveau de chèvres et de tiques d'animaux domestiques et sauvages. Bull. Soc. path. exot., **43**:672-673, 1950.

40. Jellison, W. L., and others: Q fever studies in southern California; occurrence of *Coxiella burneti* in spinosa ear tick *Otobius megnini*. Pub. Health Rep., **63**:1483-1489, (Nov. 12) 1948.

41. Parker, R. R., and Kohls, G. M.: American Q fever; occurrence of *Rickettsia diasporica* in *Amblyomma americanum* in eastern Texas. Pub. Health Rep., **58**:1510-1511, (Oct. 8) 1943.

42. Giroud, P., and Jadin, J.: Le pou dans la fièvre Q au Ruanda-Urundi (Congo Belge) conservation naturelle de l'antigène de la fièvre Q sur le pou. Bull. Soc. path. exot., **43**:674-675, 1950.

43. Beck, M. D., Bell, J. A., Shaw, E. W., and Huebner, R. J.: Q fever studies in southern California; epidemiologic study of 300 cases. Pub. Health Rep., **64**:41-56, (Jan. 14) 1949.

44. Marmion, B. P., and Stoker, M. G.: Varying epidemiology of Q fever in southeast region of Great Britain: II. In two rural areas. J. Hyg., **54**:547-561, (Dec.) 1956.

45. Huebner, R. J., Jellison, W. L., Beck, M. D., and Wilcox, F. P.: Q fever studies in southern California; effects of pasteurization on survival of *C. burneti* in naturally infected milk. Pub. Health Rep., **64**:499-511, (Apr. 22) 1949.

46. Enright, J. B.: U. S. Public Health Service Committee Report, Robert Taft Sanitary Engineering Center, Cincinnati, Ohio, Oct. 13-14, 1955.

47. Lennette, E. H., and others: Q fever studies; effects of pasteurization on *Coxiella burneti* in naturally infected milk. Am. J. Hyg., **55**:246-253, (Mar.) 1952.

48. Robbins, F. C., and Ragan, C.: Q fever in Mediterranean area; report of its occurrence in Allied troops; clinical features of disease. Am. J. Hyg., **44**:6-22, (July) 1946.

49. Robbins, F. C., Rustigian, R., Snyder, M. J., and Smadel, J. E.: Q fever in Mediterranean area; report of its occurrence in Allied troops; etiological agent. Am. J. Hyg., **44**:51-63, (July) 1946.

50. Feinstein, M., Yesner, R., and Marks, J. L.: Epidemics of Q fever among troops returning from Italy in spring of 1945; clinical aspects of epidemic at Camp Patrick Henry, Virginia. Am. J. Hyg., **44**:72-87, (July) 1946.

51. Commission on Acute Respiratory Diseases, Fort Bragg, North Carolina: Epidemics of Q fever among troops returning from Italy in spring of 1945; II. Epidemiological studies. Am. J. Hyg., **44**:88-102, (July) 1946.

52. Commission on Acute Respiratory Diseases, Fort Bragg, North Carolina: Epidemics of Q fever among troops returning from Italy in spring of 1945: III. Etiological studies. Am. J. Hyg., **44**:103-109, (July) 1946.

53. Q fever—A Foreword: Introduction to series of papers dealing with Q fever. Am. J. Hyg., **44**:1-6, (July) 1946.

54. Chenney, G., and Geib, W. A.: Identification of Q fever in Panama. Am. J. Hyg., **44**:158-172, (July) 1946.

55. Herzberg, K., Herzberg-Kremmer, H., and Urbach, H.: Weitere Befunde zur Morphologie und Diagnostik des Q-Fieber-Erregers. Zbl. Bakt. Parasitenk. Abt. I. Orig., **156**:14-22, (Aug. 15) 1950.

56. Payzin, S.: Epidemiology of Q fever in Turkey. Türk. ij. tec. biyol. der (No. 2), **9**:101-110, 1949.

57. Clavero, G., Perez Gallardo, F., and Valle, E.: Four cases of laboratory-acquired Q fever. Rev. san. e Hig. pub. (Madrid), **26**:199-201, (Mar.-Apr.) 1952.

58. Murray, E. S., Djakovic, P., Ljupsa, F., and Snyder, J. C.: Outbreak of Q fever in Sokol, Yugoslavia, August, 1950. Pub. Health Rep., **66**:1032-1037, (Aug. 10) 1951.

59. Babudieri, B., Berni, A., and Manzi, F.: Un episodio di febbre Q a Maccarese. Rendic. Ist. super. san., **15**:358-375, 1952.

60. Stokes, J.: "Q" fever in South Australia; isolation of causative organism from 4 cases and its identification as *Rickettsia burneti*. M. J. Australia, **2**:745-750, (Nov. 18) 1950.

61. Marmion, B. P.: "Q" fever. J. Roy. San. Inst., **71**:97-102, (Mar.) 1951.

62. Giroud, P., Le Gac, P., Brizard, H., and Laurent, G.: Comportment sérologique en Oubangui-Chari de l'homme et des animaux domestiques vis-à-vis de la fièvre Q. Bull. Soc. path. exot., **44**:51-54, 1951.

63. Lennette, E. H., and Clark, W. H.: Observations on epidemiology of Q fever in northern California. J.A.M.A., **145**:306-309, (Feb. 3) 1951.

64. Reed, C. F., and Wentworth, B. B.: Q fever studies in Ohio. J. Am. Vet. M. A., **130**:458-461, (May 15) 1957.

65. Kitze, L. K., Hiemstra, H. C., and Moore, M. S.: Q fever in Wisconsin; serologic evidence of infection in cattle and in human beings, and recovery of C. *burneti* from cattle. Am. J. Hyg., **65**:239-247, (May) 1957.

66. McIntire, M. S., Wiebelhaus, H. A., and Youngstrom, J. A.: Serological survey of packing house workers in Omaha for Q fever. Nebraska M. J., **43**:206-209. (May) 1958.

67. Tjalma, R. A.: Q fever in animals. J. Iowa M. Soc., **47**:684-685, (Nov.) 1957.

68. Personal communication: Iowa State Department of Health, Des Moines.

69. Luoto, L.: Capillary agglutination test for bovine Q fever. J. Immunol., **71**:226-231, (Oct.) 1953.

70. Luoto, L., and Mason, D. M.: Agglutination test for bovine Q fever performed on milk samples. J. Immunol., **74**:222-227, (Mar.) 1955.

Cervical Disease

Diagnosis, Management and the Role of Major Surgery

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Over the years, the degree of attention that has been paid to the health of the cervix has varied between extreme thoroughness and virtual negligence. At present, there has been a reawakening of intense interest, and the greatest concern about this portion of the female anatomy nowadays has to do with the early diagnosis of cancer, or of diseases and conditions which are thought to predispose to malignancy. Yet, though malignancy is undoubtedly important, there are other pathologic conditions to which the cervix is subject, and they deserve full recognition and treatment, too. These include infections, states resembling inflammation, and histologic aberrations.

Fundamentally, the cervix is a portion of the uterus. Its function, apparently, is directly related to child-bearing, for it helps to retain the product of conception until it is ready to be delivered. It is its situation, however, which is highly significant. It is the border area between the vagina, which is almost always grossly contaminated, and the uterine cavity, which is relatively sterile microbiologically.

The development of the cervix which takes place as a girl progresses from infancy to adulthood includes a variety of changes. The cervix in the newborn child is a poorly-formed organ, with gland formations rather diffusely spread about. It is almost half the length of the combined uterus and cervix at birth, but as the infant advances into childhood, there is a proportionately greater lengthening of the uterine corpus, and by the time that she becomes an adult woman, the length of the cervix is approximately one-fourth to one-third of the length of the entire uterus (cervix and corpus). This relationship normally persists until menopause, and in the meantime the uterus may in some instances involute more rapidly than the cervix.

The pathologic states of the cervix which merit consideration include the following: (1) anomalies; (2) infections (non-specific ones and some specific entities such as gonorrhea, lues, tuberculosis and others); (3) aberrant cell growth; (4) malignancy; and (5) miscellaneous conditions. Not infrequently there are combinations of these, and some consideration must be given to the histologic changes of erosion as basically an infection.

The cervix is subject to trauma, particularly laceration during childbirth. The laceration in itself may only leave a portion of the canal open and exposed. Examination by speculum tends to evert and thus to distort the actual situation. At the same time, laceration or a traumatic state may be responsible, infrequently, for a so-called "incompetent cervical os." Other damage to the cervix can arise from a number of sources such as chemical or electric cauterization, surgical repair or correction, radiation and chronic infection. All of these tend to result in contracture because of scarring. Endometriosis or ectopic endometrial implants may occur. These ectopic islands respond to the hormonal levels and present appropriate clinical entities. The "cervical stump" has been the topic of some controversy as regards whether or not it exposes the patient to extraordinary risks of disease in the cervix and predisposes her to dyspareunia.

EXAMINATION AND DIAGNOSIS

Inspection of the cervix may be inconclusive because the lumen is seldom visualized. Furthermore, if the inspection is made with inadequate attention and insufficient light, lesions can be missed.

It is an old axiom that a correct diagnosis is an essential prelude for proper therapy. Moreover, the external portion of the cervix may appear normal in a patient who has an intracervical lesion. Women who have abnormal cervical secretions need proper evaluation just as much as do those who have easily visible lesions.

There has been no unanimity about either the significance of the findings in examinations of the cervix or the treatment programs for which they are indications. Weiner and Nelson[13] counseled adequate cauterization of the erosion to be found in the cervix of the recently-delivered woman during her postpartum visit, saying that such a measure could heal it in less than eight weeks. Carrow and Greene,[1] on the other hand, concluded that hypertrophic changes of the cervix during pregnancy may alter the histologic picture, but that the criteria for diagnosis of carcinoma of the cervix remain constant.

Lapan[9] described three cases of deciduosis in pregnancy where the changes resembled those associated with malignancy. However, he was able to demonstrate that the process was nonmalignant histologically, and concluded that it

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constituted a definite clinical entity. These patients, he reported, responded satisfactorily to treatment. Other investigators have recognized this phenomenon. Lang[6, 7] and his colleagues Rakoff, De Narvaez and Tatarian[8] enthusiastically recommended the culdoscope for use in evaluating cervical erosion, as well as regression and recurrence of the atypical histologic patterns found in the cervix. Most of the rest of us admit that the instrument has some merit, but believe its value is definitely limited and contend that it is a dependable tool only in the hands of those who have been specially trained in its use. These workers described the benign cervical erosion in the non-pregnant woman as consisting of a rim of ectopy about the os (columnar epithelium) about which there is a transformation zone consisting of columnar epithelium and perhaps some isolated islands of gland openings in squamous epithelium. They concluded that true erosion—loss of epithelium—is quite rare. The pseudo-cervical erosion, they said, appeared because vascular stroma show through the thin columnar epithelium, especially if there is an increased vascularity. Their findings would seem to explain the different macroscopic appearances of the cervix before and after removal, for the removal of the cervix would allow it to "bleed out" and thus lose its hyperemic nature.

Roblee,[11] who has spent much of his professional career studying the various benign cervical lesions and diseases, has drawn a rather informative conclusion: "It does not seem . . . that the elimination of infection and the structural removal of benign lesions have in any way lessened the incidence of carcinoma *in situ* and Type 1 invasive cervical cancer." He has also emphasized that conization does not necessarily prevent the recurrence of benign or malignant disease, in spite of the normal external appearance of the cervix.

De Alvarez, Figge and Brown,[3] who developed a protracted program for studying the human uterine cervix including histologic, cytologic and clinical observation. Squamous metaplasia in 25 per cent of all their biopsies. They have stressed that suspiciously negative smears deserve special attention, and recommend the requirement that they be classed definitely as either positive or negative. Of their positive smears, 16 per cent reflected malignancy. Their false-positive smear rate was 0.2 per cent, and their false-negative rate was 17.6 per cent. The false-negative biopsy rate in their series reached 14.3 per cent, but that fact reflected merely the repeated use of a single biopsy site in a patient who was kept under continuous study. Only 0.5 per cent of the patients in their group developed cervical cancer, but various other lesions such as polyps and benign tumors of the cervix were encountered.

Hyams[5] and also Crawford, Collins and Weed[2] stressed that various lesions arise in the cervix that is left after hysterectomy, and declared that the cervical stump may be the source of many patients' complaints. Consequently, both Hyams and Crawford, *et al.* strongly advised the performance of total rather than sub-total hysterectomies. Greene and Peckham[4] expressed concern about squamous menoplasias. Although in a study which they made they found that these lesions were self-limiting, they regarded them as forerunners of more serious conditions.

TREATMENT

Some years ago, Miller and Todd[10] were strong advocates of conization of the cervix, and when properly executed that procedure will serve to remove the eroded portion of the organ. Success, however, isn't easy to achieve. Inadequate removal of diseased tissue constitutes incomplete treatment. On the other hand, if the removal is too extensive, it predisposes to scarring, and a firm scar may contribute to a serious soft-tissue dystocia in the event of a subsequent pregnancy. Also, if one cuts too deep without using coagulating heat, a profuse and even dangerous hemorrhage may follow. A major amputation may result in an incompetent cervical os, and allow the loss of a pregnancy before the fetus has become viable, or if excessive scarring occurs, may result in cervical stenosis.

If one could convince himself that a woman of child-bearing age would henceforth have no need



Figure 1. Cross section of normal adult cervix.

for the physiological function of the cervix and that there would be no hazards in the event of atresia, then he could solve the problem by means of a single treatment. However, the cervical lumen must be left patent, and the functions of the cervix cannot be pathologically altered. Only careful observation and step-by-step treatment will suffice.

The non-malignant lesions can be treated according to appropriate therapies. If the infection is tuberculous, one should look for a focal site elsewhere in the patient's own body or in her husband's. Then, medical treatment will probably serve the purpose.

The lesions cataloged as erosions, eversions or ectopias can be treated by chemical or electrical cauterizations. It is the practice at our institution to start these people on chemical cauterizations so as to reduce the risk of severe pelvic inflammatory disease, and silver nitrate stick is the preferred agent. Silver nitrate is likely to be less damaging than electricity, for it does not penetrate deeply into the tissue. Chemical cauterizations certainly should be done no more frequently than once a month or at even longer intervals, and should be done during the first half of the menstrual cycle. Further, the patient should be warned of the possibility of excessive menstruation at the next period. The vaginal douche is essentially a mechanical agent but may have symptomatic benefits. Powdered alum (one heaping teaspoon) or table salt (two tablespoons) to the quart of water each evening will remove necrotic material. After the first month, the douche should be performed only every other night for two or three weeks, and thereafter discontinued. There is no sound medical or microbiologic reason for the use of alkalies or acids in a vaginal douche.

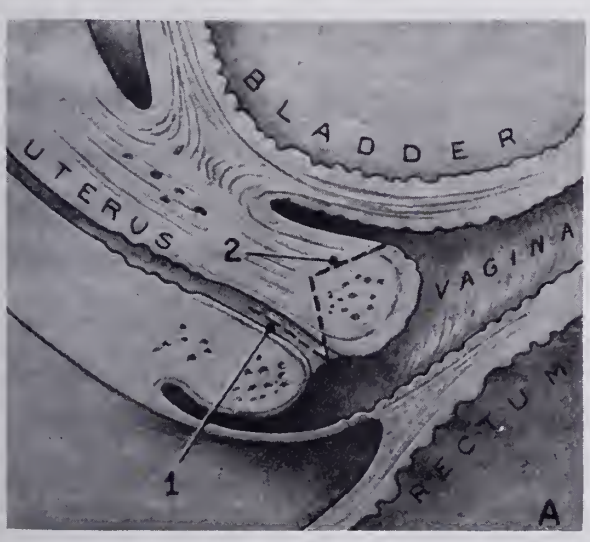


Figure 2. One method of obtaining a larger specimen than is secured by the usual biopsy.

If chemical cauterization fails to achieve the intended result completely, electric cauterization may be employed to dessicate the canal and external areas. Only low heat may be applied, and one must use caution. It is preferable, in general, to apply this form of treatment in two or three stages, spaced two or three months apart, rather than run the danger of causing too much response. If a residual cervical stump does not respond promptly to electrical cauterization, surgical removal may be a distinctly preferable procedure, and this removal should be performed through the vagina.

A cross section of the cervix in the non-pregnant state reveals that the cervical glands may constitute a moderate portion of the thickness of the structure (Figure 1). From the illustration, it is obvious why the so-called "silent lesions" may go unnoticed.

If the lesion is external or is located at the external os, a biopsy, a simple cone or an amputation would include an ample amount of tissue for examination (Figure 2). This would not include endocervical tissue at a higher level.

If one does not obtain sufficient tissue from the cervical canal by curettage, and yet feels the need to obtain more for examination, he can remove the gland portion by the removal of the cervix, or perhaps preferably by means of a complete and inclusive cone. This latter procedure is known as the Sturmdorf tracheloplasty (Figure 3). Residual sequelae may follow this more extensive removal of the cervix or the endocervix.

From time to time, one hears it recommended that a diseased cervix be treated by total hysterectomy. This is a major procedure. Other gynecologists advocate high amputation of the cervix even in patients still in the third decade of life, but that surgery may contribute to serious obstetric problems such as premature loss of a pregnancy, or dystocia. On the other hand, there only infrequently is a reason for leaving the cervix behind when the body of the uterus must be removed. In severe or extensive endometriosis or pelvic inflammatory disease, it may be desirable to leave the cervix *in situ*. If necessary, the cervix can be removed later. These variations will constitute no more than a very small percentage.

The controversy over carcinoma *in situ* has provoked much debate on (1) criteria for diagnosis and (2) methods of treatment. Te Linde, Galvin and Jones[12] have said bluntly that in the presence of the unequivocal diagnosis of carcinoma *in situ* of the cervix, hysterectomy is indicated, with the removal of a generous portion of vaginal wall. To these workers, this condition is a true malignancy, yet a number of other authorities are less drastic in their recommendations. Most authorities advise thorough destruction at the involved site, removal of the cervix or total hysterectomy. Thus, until the degree of seriousness has

been established, there will continue to be conflicting recommendations. Nowadays, practically all gynecologists are treating this lesion by some type of surgical removal, and are not using radiation.

Cytology now seems definitely established as a tool for "screening." Therapy should not be instituted until tissue obtained by curettage or biopsy has confirmed the diagnosis of malignancy. When cytology has been used for endocrinal evaluations and perhaps conditions of pregnancy, the patient's clinical state must be taken into consideration as one evaluates the pathologist's report.

CONCLUSION

There are a number of diseases of the cervix, and they can be diagnosed by appropriate means —cytologic, microbiologic, chemical and biopsy.

A strong plea has been made for careful inspection of all cervices and for soundings of cervical canals. If undue bleeding comes from within the canal following a sounding, definitive steps must be taken to diagnose the process within the lumen.

Except for carcinoma *in situ,* carcinoma of the cervix has not been included in this discussion.

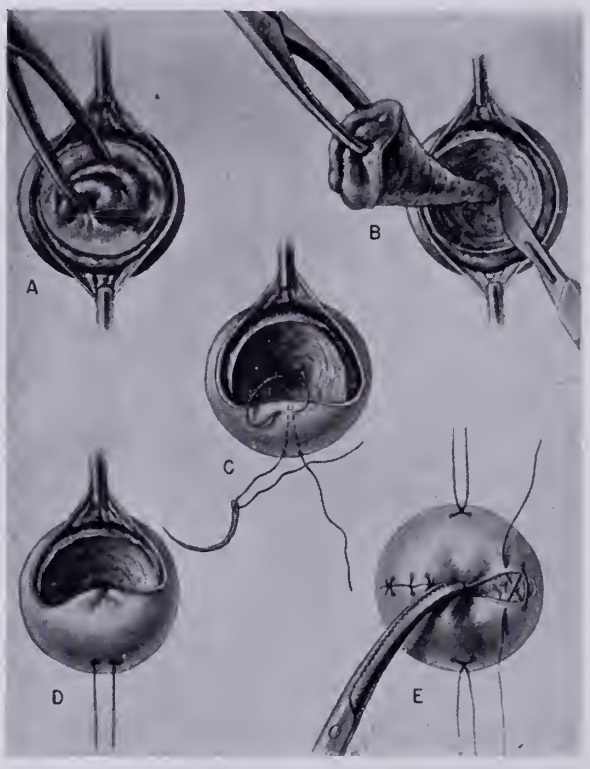


Figure 3. When the endocervix is desired, the Sturmdorf tracheloplasty may be used. (A) Circular incision has been made and mucosal flaps freed. (B) Cone containing endocervix is excised. (C) Mattress suture has been placed to cover posterior lip with mucosal flap. (D) Mattress suture has been pulled tight, drawing mucosal flap into cervical canal. (E) Mattress sutures tied. Lateral mucosal edges are approximated. (After Te Linde)

The diagnosis of carcinoma *in situ* must not be missed, but just as importantly, it must not be made upon insufficient evidence. Cytology must be used only as a screening tool, and in cases thus singled out, a biopsy of the cervix or a curettage of the uterine cavity must yield confirmatory evidence.

In the treatment of cervical disease, we must bear in mind the consequences or potential complications to which the procedures may subject the patient. If the situation is critical enough, it will justify the risks that attend the more radical therapeutic technics, but the treatment must not be more drastic than the course of the disease justifies.

A special plea has been made for care in avoiding cervical-canal stenosis. When severe stenosis occurs, it may predispose to endometriosis, some observers believe. At or after the menopause, cervical stenosis may seal the uterine cavity and thus prevent the early bleeding of corporeal cancer or enhance a pyometria.

For carcinoma *in situ,* further study will reveal the optimal amount and nature of treatment. For the present, when a competent pathologist has made the diagnosis on the basis of material obtained by biopsy and curettage, complete removal of the cervical lesion is recognized as one mode of treatment. This may be done by cervival amputation, Strumdorf tracheloplasty or other means. In women in their mid-thirties or older, one would be justified, according to some authorities, in doing a total hysterectomy. At this time irradiation for carcinoma *in situ* is not generally endorsed.

The cervix is accessible to inspection, yet it is one of the most frequently neglected of the pelvic structures. Major surgery should be done only when there is a condition present in the cervix which justifies it.

It is important that every cervical lesion be accurately diagnosed and appropriately treated. This is the moral, ethical and legal responsibility that has been placed upon the physician. To fulfill these responsibilities, each doctor who treats gynecologic patients must keep abreast of medical advances.

REFERENCES

1. Carrow, L. A., and Greene, R. R.: Epithelia of pregnant cervix. Am. J. Obst. & Gynec., **61**:237-252, (Feb.) 1951.
2. Crawford, J. B., Collins, C. G., and Weed, J. C.: Cervical stump; analysis of 123 cases. Surg. Gynec. & Obst., **88**:465-472, (Apr.) 1949.
3. De Alvarez, R. R., Figge, D. C., and Brown, D. V.: Long range studies of biologic behavior of human uterine cervix. Am. J. Obst. & Gynec., **74**:769-791, (Oct.) 1957.
4. Greene, R. R., and Peckham, B. M.: Squamous papillomas of cervix. Am. J. Obst. & Gynec., **67**:883-898, (Apr.) 1954.
5. Hyams, M. N.: Benign tumors of cervical stump following supravaginal hysterectomy. Am. J. Obst. & Gynec., **37**:690-695, (Apr.) 1939.
6. Lang, W. R.: Benign cervical erosion in non-pregnant women of childbearing age. Am. J. Obst. & Gynec., **74**:993-999, (Nov.) 1957.
7. Lang, W. R.: Colposcopy—neglected method of cervical evaluation. J.A.M.A., **166**:893-897, (Feb. 22) 1958.
8. Lang, W. R., De Narvaez, F., and Tatarian, G.: Regression, recurrence and regression of epithelial atypism of cervix

as indicated by cytologic smear, colposcopic findings and Schiller iodine staining. Am. J. Obst. & Gynec., 74:1000-1004, (Nov.) 1957.
9. Lapan, B.: Deciduosis of cervix and vagina simulating carcinoma. Am. J. Obst & Gynec., 58:743-747, (Oct.) 1949.
10. Miller, N. F., and Todd, O. E.: Conization of cervix. Surg. Gynec. & Obst., 67:265-268, (Sept.) 1938.
11. Roblee, M. A.: Cervicitis clinic; 25 years in review. Am. J. Obst. & Gynec., 71:660-669, (Mar.) 1956.
12. Te Linde, R. W., Galvin, G. A., and Jones, H. W., Jr.: Therapy of carcinoma in situ. Am. J. Obst. & Gynec., 74:792-803, (Oct.) 1957.
13. Weiner, A. E., and Nelson, H. B.: Care of postpartum cervix. Am. J. Obst. & Gynec., 62:1106-1110, (Nov.) 1951.

The Knowles Vertebral Support Operation

F. L. KNOWLES, M.D.

FORT DODGE

IN DISCUSSING the herniated intervertebral disc, one can't possibly acknowledge the work of all the surgeons who have contributed to the advancement of knowledge in this field.

Originally, the surgical treatment was an extensive laminectomy, but that procedure has now been virtually abandoned. Diagnostic myelograms, which likewise were routine a few years ago, are no longer done as a routine in most clinics. Removing much of the unruptured disc is still done, but that therapy is gradually being abandoned.

In evaluating the treatment of herniated discs, we should first review the factors which produce this syndrome. First, there is an unstable low back, with congenital malformation of intervertebral facets and the surrounding structures. Then a sharp lordosis of the lumbar spine produces a wedge-shaped fifth lumbar disc, and there is a constant resultant pressure on the posterior half of that disc. Second, pressure and poor nutrition cause a softening and liquefaction of that posterior half of the disc. Third, an injury—either mild or severe—forces the soft disc to bulge backward toward the cauda equina and the nerves going to the legs. Then back ache is produced by the undue strain that has been put upon the normal facets, and leg pain results from a bulging of the softened disc. If the bulge is toward the left, there is left-leg pain; if toward the right, right-leg pain; and if in the center, both legs may be involved.

Several years ago, at a meeting of the Orthopedic Academy, an excellent demonstration was given of the action of the normal disc. When vertebrae are moved, the annular ligament on the compressed side bulges, and the ligament on the widened side is straight and tight. All normal discs bulge a little, but when a disc has softened, this bulge increases in size and presses upon the nerve in the foramen, producing neurologic symptoms in the leg. The relative positions of the two vertebrae can be corrected by bringing the surfaces of the disc parallel, thus drawing the bulging annular ligament taught, pushing the disc forward into its normal position and removing pressure upon the nerve.

Before undertaking such correction, however, the physician should put his patient into a hospital bed, and elevate his knees and back. In that position—with the back flattened and the disc space widened—the bulge or herniation of the disc will be reduced, for the time being, and if the disc has been merely herniated, the patient's symptoms will disappear. But if the disc has ruptured, and if a piece of it has passed into the spinal canal—a complication which is found to occur in 1.5 to 2.0 per cent of cases—being put to bed with his knees and back elevated will give the patient no relief, even if he is kept in that position for six days. An attempt at interrupting the symptoms by thus realigning the fifth lumbar and the first sacral vertebrae is a fairly accurate way of determining whether the patient has a ruptured disc or merely a herniated one. If a piece of disc is loose in the spinal canal, it must be removed.

When the proper relationship between the two vertebrae and the intervening disc have been restored, the vertebral support can be placed between the posterior spinous processes and maintain this position. If the vertebral support operation can be done early in the course of the disease, rupture of the disc can be prevented.

HISTORY OF ONSET

Patients give a history of low-back pain over months or years. A very low percentage of them have a list toward one side. A torn meniscus of the intervertebral facet causes locking of this facet. This is very similar to the locking in the knee joint. A second symptom which patients generally report is sudden radiating pain, at first into the gluteal area and, in later attacks, down the thigh, leg and outer side of the foot. Coughing may or may not produce back or leg pain. Straightening from a stooped position is often painful. The attacks are intermittent, each more severe than its predecessor.

Patients generally get considerable relief from pain by assuming a flexed-thigh position, which flattens the lumbar area.

PHYSICAL EXAMINATION

Leg-raising may be negative in the early cases. If raising the leg to 30 or 80 degrees causes severe pain, then the afferent nerve has been bruised. This nerve is swollen and tender. Most patients who have a very positive leg raising test are not completely cured immediately following the operation. You must give this battered nerve several weeks to completely recover. Furthermore, if the afferent nerve has been badly damaged over a long period of time, some of its fibers may never recover and there will be areas of permanent sensory loss. Thus we have another reason for early surgery, to avoid permanent nerve damage.

The knee-chest position should be painless in each leg. The heel-knee test should likewise be negative. If it produces pain, one should x-ray the patient for arthritis of the hip.

The reflexes may be either normal or absent. Or they may be present in the affected leg and absent in the sound one. I don't consider reflexes of any value in making a diagnosis.

The dermatome pattern of the thigh and foot *must* be positive and clearly outlined. A fifth interspace involvement is thus outlined. If the dermatome pattern indicates involvement of the fourth interspace on one or both sides, then one vertebral support should be placed between the fifth lumbar and the first sacral, and one between the fourth and fifth lumbar posterior spinous processes. If the dermatome pattern shows only the fifth interspace, the vertebral support should be placed only between the fifth lumbar and the first sacral vertebrae.

Back pain is due to ligamentous strain at the intervertebral facets. Leg pain is due to a bulging or herniation of the disc, with consequent pressure upon the afferent spinal nerve.

Three preoperative x-rays are taken: one AP with knees sharply flexed; one lateral with the patient standing erect; and one lateral with the patient lying on his left side in a tight knee-chest position. If the two lateral films show that there is no motion between the fifth lumbar and the first sacral, the vertebral support operation should not be performed, for there is advanced arthritis with fibrosis.

In a very high percentage of cases, the x-ray examination demonstrates mild or severe congenital anomalies, and it is these abnormalities that cause the instability of the low back which is the

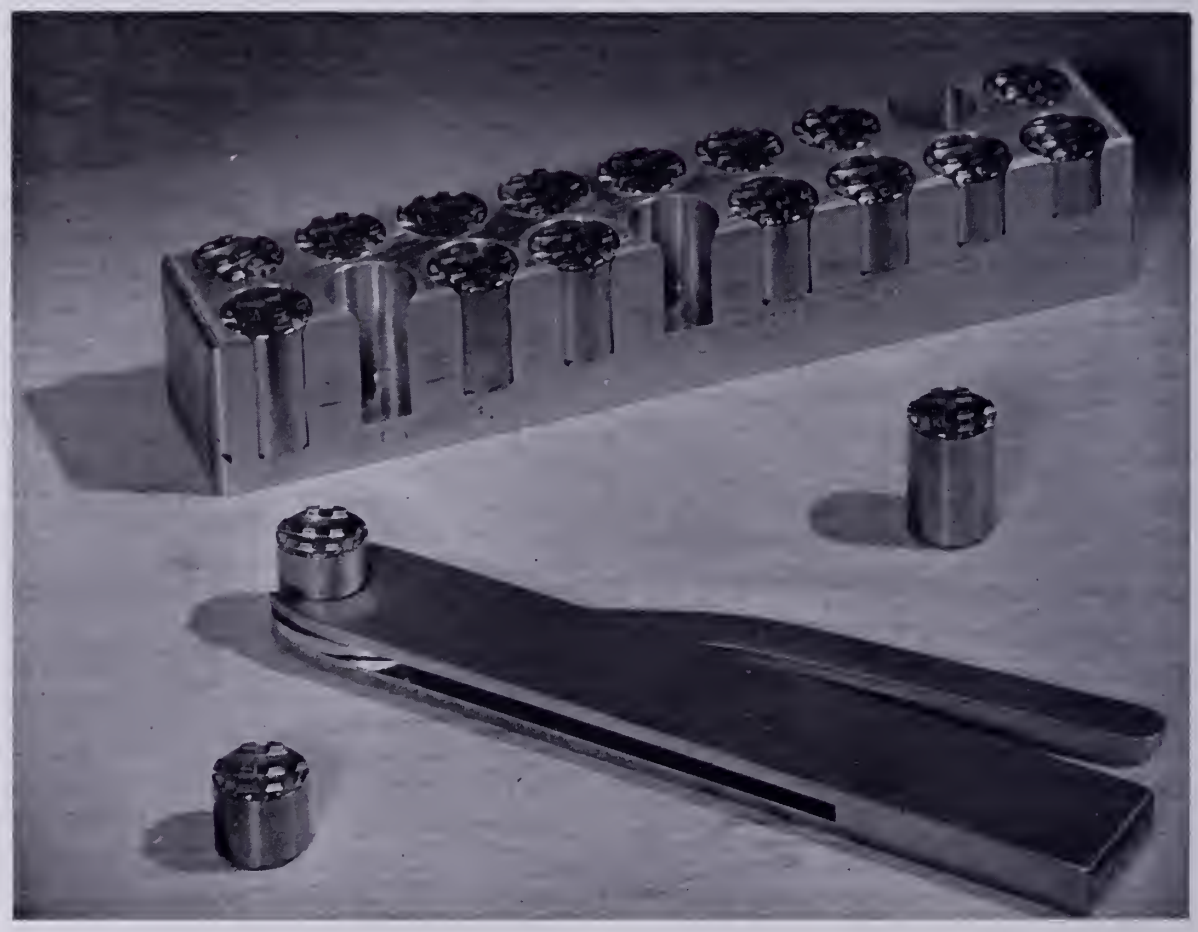


Figure 1. A set of vertebral supports (two each of nine sizes) and the inserting instrument.

precursor of a bulging disc. In approximately one per cent of cases, there is no first sacral arch, and in such instances a special very long vertebral support is placed between the fifth lumbar and the second sacral posterior spinous processes.

OPERATIVE TECHNIC

The premedication should consist of the following:

Pantopon	1/6 Gm.	Two hours before surgery
Nembutal	1 1/2 Gm.	Two hours before surgery
Pantopon	1/6 Gm.	One hour before surgery
Scopolamine	1/150 Gm.	One hour before surgery

The back should be prepped and a dry sterile towel applied one hour before surgery.

For surgery, the patient should be placed on his left side on an x-ray cystoscopic table in a tight knee-chest position, with his knees braced against the upright x-ray support, cushioned by means of a pillow. One can anchor the patient in this position by tying the end of a roll of cloth five yards long and six inches wide to the base of the x-ray support; then passing the cloth beneath the patient's left shoulder, then up over his right shoulder; then back around the x-ray support, drawing the wide bandage very tight and fastening it with a half-hitch; then passing it around both of his feet and back around the half-hitch; finally passing it up over the horizontal x-ray support, raising the patient's right arm, and tying it around his wrist and hand. By thus raising his right arm and hand high, one assures an ample breathing excursion for his chest.

Sodium pentothal and nitrous oxide anesthesia should next be given. Then prep the back and drape the patient.

Locate the fifth lumbar interspace, and make a stab wound with a scalpel through the skin and the posterior spinous ligament. Then insert a hemostat through the ligament. Take a lateral x-ray, the film for which has been inserted before the draping, and view the x-ray to make sure that the hemostat is at the proper interspace. Now lengthen the incision to about 1¼ inches, and incise the posterior tendon lengthwise between the fifth lumbar and first sacral. Cut upward close to the fifth process, and downward close to the first sacral process.

Pack the wound to stop the bleeding, and then insert a vertebral support between the posterior spinous processes. Remove, and push in a longer support. When each longer support is pushed into place, the disc space is gradually widened.

Drive in each successive support as tight as possible, and if it still can be moved, drive in a larger size until considerable force would be required for its removal. By sense of touch, make sure that it is well placed between the posterior spinous processes, and take a lateral x-ray to confirm your impression—particularly to make sure that the support does not impinge upon the spinal canal.

Use double No. 1 plain catgut to reclose the posterior ligament, and use two dermal skin sutures. Apply a dry 4 x 4 dressing, taped around the edge with two-inch adhesive.

POSTOPERATIVE CARE

The following postoperative medications are suggested:

Papaine	1 dram	Every 8 hrs. for 5 doses
Nembutal	1½ Gm.	At 9 p.m.
Aspirin	5 Gm.	PRN
Compound licorice powders	5 drams	At 9 p.m. on first night



Figure 2. A lateral x-ray showing one vertebral support between the posterior spinous processes of the fifth lumbar and first sacral vertebrae.



Figure 3. An AP view showing the vertebral support in place.

In addition, a high-protein diet should be prescribed, plus fresh fruit with each meal. The patient may go to the toilet on the first evening, and thereafter may get up whenever he wishes. Usually such individuals are up and around quite promptly, and are ambulatory during the remainder of their hospital stay. Patients whose homes are within 100 miles stay four days, and return to the office to have their stitches removed. Those who live at greater distances remain in the hospital seven days and do not return.

MY SERIES OF CASES

Over the past 6½ years, I have used the vertebral support operation in 360 cases, in all but two of which there had been a definite dermatome pattern preoperatively. In six patients with moderate or severe spondylolisthesis, I used two vertebral supports with good postoperative results.

In a questionnaire mailed to the first 200 of these patients, I asked for estimates of the improvement which they thought the operation had brought about. The following is a summary of the responses from the 167 who replied:

PATIENT'S ESTIMATES OF IMPROVEMENT POSTOPERATIVELY

Very considerable improvement:

"100 per cent"	60 patients	(35.9 per cent)
"75-100 per cent"	75 patients	(44.9 per cent)
"50- 75 per cent"	15 patients	(9.0 per cent)
	150 patients	(90 per cent)

Relatively negligible improvement:

"Less than 50 per cent"	17 patients	(90 per cent)

Following is a division of my patients into age groups:

10-20 years	2 patients
20-30 years	35 patients
30-40 years	86 patients
40-50 years	99 patients
50-60 years	55 patients
60-70 years	9 patients
70-80 years	6 patients
	292 patients

ADVANTAGES OF THE OPERATION

The vertebral support operation involves no injury to the bony structure. Only the posterior spinous ligament is lengthened.

In other than extraordinary circumstances, the patient's hospital stay is just four days, and he can return to light work quite promptly. Office work is possible after just one week, moderate physical work after three weeks, and farm work after from six to 12 weeks. There are no postoperative scars around the cauda equina of afferent nerves.

The corrective anatomical changes include the widening of the disc interspace to its full limit, a greater widening than the patient could ever achieve before operation. The bulge of the herniated disc is corrected, and the disc is thus pushed back into its proper place. The foramen through which the spinal nerves leave the vertebral column is made larger than normal (removal of the disc would narrow this foramen).

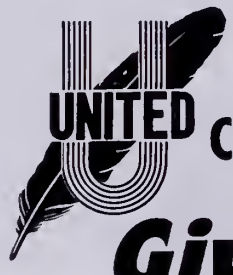
The operation corrects lordosis completely. By having his back straightened, the patient often is made ⅜ inches taller than before. It brings the sacrum more squarely under the fifth lumbar vertebra, and completely stabilizes the "unstable low back" which was the precusor of disc trouble. All of these necessary corrections, be it remembered, have been made through a minimal operative procedure requiring an incision only 1¼ inches in length.

Five months or more after surgery, I have found that first a fibrous and then a solid bony fusion occurs between the involved vertebrae. In many cases, solid bone forms around the metal vertebral support at a fairly early date.

In three of my cases in which pain returned, I repeated the operation and substituted a longer vertebral support. Again, the pain was relieved.

The results in my six spondylolesthesis cases have been very good. In each of them, I used two vertebral supports, one between the fourth and fifth lumbar, and one between the fifth lumbar and first sacral vertebrae.

In a few instances I have had occasion to remove vertebral supports that loosened after having remained in place for five or six months. Removal had little effect, for the patients already had acquired solid ankylosis in the corrected position.



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SUMMARY OF CLINICAL FINDINGS

The patient was a full-term, newborn female infant, the second child of a 28-year-old mother. A 2½-year-old sibling was reported to be healthy.

During her fifth month of pregnancy, the mother had an exacerbation of a recurrent diarrhea that had been present for three years. A stool examination revealed the cysts of Giardia lamblia. She was treated with chloroquine, 0.5 Gm. twice a day for four days. Her stools were examined a month later and were found to be free of parasites. Five weeks prior to delivery, she fell, and during the following week she had lower-abdominal pain. Four weeks prior to delivery, she was admitted to this hospital because her membranes had ruptured. Two days before that admission, she had had the onset of chills, fever and a productive cough. The admission roentgenogram showed evidence of pneumonitis. The infection responded to erythromycin-streptomycin therapy, and the woman was dismissed five days later without signs of infection.

During the latter part of the pregnancy, the record shows that the mother's abdomen was unusually large, although her weight gain was only 16 lbs. Her labor was spontaneous in onset and short in duration, lasting only 4½ hours. There was considerable difficulty in delivering the child because of the gross distention of the infant's abdomen.

The examination of the neonate revealed a 3,110 Gm. infant, dusky in color and having a greatly distended abdomen. An ill-defined mass was present in the left abdomen, and there was brawny edema of the left ear and left neck.

The infant did not breathe spontaneously, nor did she breathe after the usual methods of stimulation and pharyngeal aspiration. She was then intubated and given oxygen through a T-tube. Ventilation was provided by intermittent manual pressure on an anesthesia bag.

The abdomen was sufficiently distended to suggest that it might be influencing respiration, and consequently a needle was inserted into the abdominal cavity, and 200 cc. of bile-stained fluid was removed. The procedure did not relieve the abdominal distention or improve the respiration. The cord blood was reported to be Rh positive and Coombs test negative.

Spontaneous, irregular and marginally adequate respirations were present after one hour.

The patient was taken to the Department of Radiology, where roentgenograms of the chest and abdomen revealed diffuse flecks of calcium in the abdominal cavity, a right pneumothorax and an interstitial mediastinal emphysema. The Department of Surgery was consulted.

After 10-15 cc. of air had been removed from the right thorax, the respiratory rate varied between 40 and 60 per minute, and the infant's color improved. She was placed in an isolette to provide oxygen therapy and temperature support. Approximately 5½ hours after birth, the infant's respirations stopped.

SUMMARY OF CLINICAL DISCUSSION

Dr. J. C. MacQueen, Pediatrics: The medical care of the newborn described in today's protocol was provided by members of several departments in this hospital. It has been decided that each of the individuals involved should discuss his part in the treatment. Dr. Swann, of the Department of Obstetrics, will present the prenatal and paranatal aspects of the case.

Dr. R. O. Swann, Obstetrics: This 28-year-old gravida II para I was first seen as a private patient in our Department on April 3, 1957. At that time she had a calculated due date of October 16, 1957. Her pregnancy was uneventful and uncomplicated except for an exacerbation of a recurrent diarrhea that had been present for three years. She had a parasitic infestation that was treated effectively with chloroquine. She fell during the course of her pregnancy, and had some lower-abdominal pain, but no external vaginal bleeding. The fetal heart tones were good, and there was no apparent evidence of injury on examination.

On August 26, 1957, she was admitted to this hospital after having spontaneously ruptured her membranes. There was no question about the membranes being ruptured, for there was a considerable amount of drainage. There was no overdistention of the uterus at that time, and no evidence of polyhydramnios. At the time of admission, she had a fever, and on examination of her chest it was evident that she had a pneumonitis. This finding was confirmed by x-ray.

You will recall that I said her due date was October 16, 1957, and that she ruptured her membranes on August 26, 1957. Thus, the baby was premature. I might digress for a moment to tell you some of our policies regarding the management of the patient with premature rupture of the membranes. If a patient ruptures her membranes spontaneously, labor starts within 12 to 24 hours in practically all cases. If labor does not occur and if we estimate that the baby weighs 2,500 Gm. or more, we induce labor with a dilute intravenous pitocin and cover the patient with antibiotics. We believe that there is nothing to be

gained by keeping a term-sized baby in the uterus, since we are fearful of an ascending infection and possible pneumonitis in the foetus. If there is any question about the rupture of the membranes and if the baby is term size, we do a sterile vaginal examination to confirm our clinical impression of probable ruptured membranes. If the presenting part is floating, a sterile vaginal examination will rule out the possibility of prolapsed cord. On the other hand, if we are dealing with a premature baby, we merely listen to the fetal heart. We do not perform a sterile vaginal examination for fear of introducing an infection. We hope that the pregnancy will continue in spite of the rupture of the membranes.

If the patient does not go into labor, she is kept in the hospital for three or four days, and antibiotic therapy is initiated. She is kept at bed rest, usually for the first couple of days. Naturally, we hope that she will carry the baby long enough for it to approach term size. That was our management in this particular case. No sterile vaginal was done because of the prematurity of the baby. We had the additional complication of pneumonitis. The patient failed to go into labor, and she was not stimulated because of the prematurity of her baby. She was placed at bed rest. She was started on antibiotics. Her pneumonitis responded on the thirty-first of the month, or five days after her admission, and she was permitted to go home. She was continued on antibiotics for approximately another week, and she was seen subsequently at weekly intervals.

Your protocol states that during the latter part of the pregnancy the mother's abdomen was described as unusually large, although her weight gain was only 16 lbs. I think that that statement is erroneous. After reviewing the chart and searching my own memory, I can find no evidence to support it, but I do recall that the patient was losing a large amount of fluid. The baby's abdomen was found to be distended, and perhaps the author of the protocol inadvertently ascribed the infant's symptom to the mother. Indeed, if the mother's abdomen had been enlarged to term size and if we were satisfied that the size of the baby was responsible for that enlargement, we would have induced labor. On the contrary, we were concerned about the prematurity of this child and therefore planned to wait for the spontaneous onset of labor, or to wait until the baby was out of the premature range before inducing labor.

The patient was readmitted to the hospital on September 21, 1957, or about 25 days prior to October 16, 1957, the estimated date of her confinement. Again, since the height of the fundus was recorded as X-5, we were not impressed by the size of the baby. The patient had a fairly normal first stage of labor, lasting four hours and 20 minutes. The second stage lasted 17 minutes. The delivery of the head was uneventful, and the shoulders were delivered without appreciable difficulty. Resistance was then encountered. The patient was delivered under local anesthesia, with a pudendal nerve block. The abdomen of the baby was tremendously enlarged, but delivery was accomplished by fundal uterine pressure, without decompressing the abdomen. Occasionally, the abdomen is so large that one has to decompress it before delivery can be performed. Frequently, the enlarged abdomen is due to an over-distended bladder or to ascitic fluid. Insertion of a needle will permit the abdomen to collapse and the baby to be delivered.

With the delivery of this infant, there was an extension of the episiotomy to involve the oval sphincter muscle. It was repaired. The third stage of labor was uneventful. The total labor lasted four hours and 42 minutes. The baby weighed 3,010 Gm., but this weight is deceptive, for if the ascitic fluid had been removed her weight would have been less than 2,500 Gm., and she would have appeared what indeed she was—a premature infant. I think that this fact should be kept in mind in evaluating this case.

The baby did not spontaneously initate respirations on delivery. It seemed that there was sufficient abdominal distention to elevate the diaphragm markedly, and consequently it was thought advisable to tap the abdomen and withdraw fluid. Since I was busy with the mother and Dr. Goddard happened to be out in the hallway, I asked him to take over the care of the baby. The baby was intubated, and when a paracentesis was performed, 200 cc. of fluid was removed. There still remained a marked amount of fluid in the abdomen.

The rest of the protocol describes the subsequent events, and I think Dr. MacQueen and the others will discuss some of the problems of resuscitation of the newborn. I can tell you our policy regarding resuscitation. We do three things: (1) we maintain body temperature by keeping the baby warm; (2) we try to clean out the nasopharynx by gentle suction; and (3) we then supply oxygen, usually by means of a face mask and positive pressure. If we cannot ventilate a baby by means of an oxygen mask and positive pressure with a bag, we resort to intubation. There are very few babies who require intubation, and one should exercise care so as to avoid that procedure whenever possible.

Dr. MacQueen: Because the infant was obviously ill at birth, a pediatrician was called to the delivery room.

The single, most unusual and impressive physical finding in the appearance of this infant was the very large abdomen. Her color was dusky, and she was only marginally responsive to stimuli. There was a small amount of meconium stool in the anus. The brawny edema of the left ear and left neck was unique, and I have no explanation for its cause.

The urgent medical problem was that of deter-

mining the etiology of the infant's abdominal distention, so that proper therapy could be given. The differential diagnosis of that condition in the newborn is quite different from the differential diagnosis of abdominal distention in an infant a few hours or a few days of age. It would be safe to say that abdominal distention in a neonate is rare. The most probable causes are cysts and tumors present within the abdominal cavity during fetal life. In the medical literature there are reports of various intra-abdominal cysts in neonates—cysts of the common bile duct, cysts of the mesentery and urachal cysts. There are various types of intra-abdominal tumors that can occur in neonates, too—hamartomas and retroperitoneal teratomas. Fibrocystic disease in the neonate causes meconium ileus and bile peritonitis. Bacterial peritonitis of intrauterine origin has been known to occur. Hydronephrosis and congenital nephrosis have been reported.

I wish to reiterate that if an infant is not born with abdominal distention but acquires it after living for a few hours, then the differential diagnosis is entirely changed. Early acquired abdominal distention is caused by intestinal obstruction secondary to atresia or malrotation, until proved otherwise. If a child has lived for a few months or a few years before abdominal distention occurs, then the differential diagnosis includes embryomas, neuroblastomas and malignant hepatomas.

In this case, we were primarily concerned with the possibility of a rupture of the hepatic system or meconium ileus, for the material aspirated from the abdomen was bile-stained, and when shaken, a yellow foam appeared on the top of the liquid. I admit that I was concerned lest the illness that the mother had had during her pregnancy might be a "sleeper" in this case.

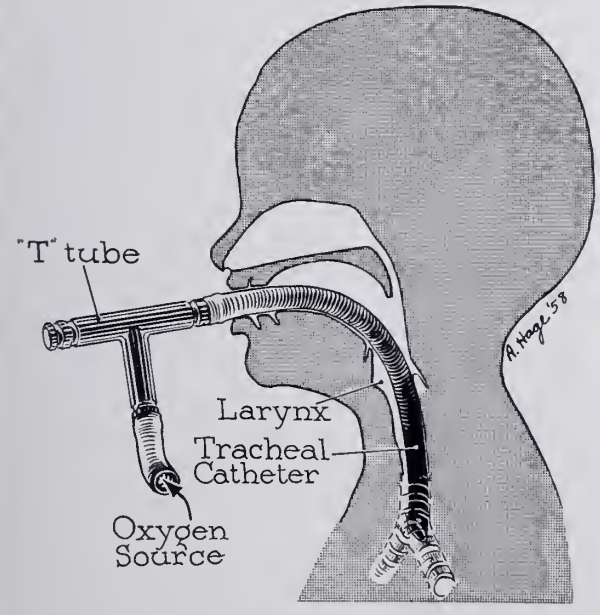


Figure 1

Although a correct diagnosis was badly needed if we were to understand and properly care for the baby, our primary problem of the moment was the supportive care of an infant who did not breathe spontaneously. In spite of the usual procedures—tracheal suction and positive-pressure breathing—no improvement occurred in the baby's respiration.

Dr. W. K. Hamilton, Anesthesiology: I was the second member of our unit to see this child. One of our residents was already in the delivery room when I arrived, and as I have gathered the story from him, the child was apneic and did not initiate respirations. An attempt was made with a bag and mask, as Dr. Swann has mentioned, but it was unsuccessful. Then an endotracheal catheter was inserted, and the child was ventilated by means of what we call a T-tube (Figure 1).

The problem of maintaining airway in newborns is not a small one. Intubation is done in an attempt to secure a more definite airway and thus to provide adequate ventilation when we have been unable to do it otherwise. An endotracheal catheter is inserted through the patient's mouth and larynx, and on the outside of this endotracheal catheter we put a T-tube. To the stem of the T, we connect an oxygen source, a compressed gas cylinder in which the pressure is about 2,000 lbs./sq. in. A reducing valve between the cylinder and the T-tube lowers the pressure to about 35 lbs./sq. in. We set this at some flow rate which is not critical, and then by alternately occluding and opening this limb of the T-tube, the gases are delivered under some pressure, the degree depending upon the time during which we occlude it. Thus, the lungs are inflated. Then, by opening up the upper limb of the T-tube, we release the pressure and allow deflation to occur passively.

The tube was inserted under direct vision by means of a laryngoscope, and there was a consequent improvement in the child's color. It is our policy to help the child breathe as long as is necessary, and we let the baby "tell" us this. When we attempted to stop artificial ventilation in this case, the child failed to assume respirations of her own that were of sufficient magnitude to appear adequate. When the child breathed spontaneously, Dr. MacQueen was unable to hear what he considered adequate breath sounds throughout the lung field, although he could hear them when we ventilated her. Therefore, ventilation was continued throughout the time that the diagnostic procedures were being done. We repeatedly stopped to discover whether the child could ventilate on her own. We took the child to X-ray, where radiographic studies were made, and artificial respiration gave us time to do the head-scratching and the diagnostic procedures that were essential to progress in our care of the child.

We had one complication—the endotracheal tube came out accidentally. The child immediately be-

came cyanotic, and we had to reinsert the tube and resuscitate her. We suspected a pneumothorax, and our suspicions were confirmed and treatment instituted. When the pneumothorax had been treated by aspiration, the child breathed adequately on her own, with added oxygen, and as you have seen in the protocol, she was moved to the nursery.

You can see by the illustration that the endotracheal tube is a small, very frail apparatus, and as such is not particularly traumatic. A single drop of mucus, blood or other material could completely occlude the lumen of this tube, and indeed its diameter does not differ greatly from that of the trachea in an infant such as we are discussing here today. I mention this point in order to emphasize the smallness of the natural airway in such a child.

The cause of apnea in this patient was unknown to us. The mother received, as preoperative sedation, only a small dose of Seconal,® and the baby was delivered some 20 to 30 minutes later. No opiate had been used, as Dr. Swann has told you. No inhalation anesthesia had been used. Thus, we are left without any of these things to blame. Whether or not this child's illness—for lack of a better term—had something to do with apnea is open to speculation. In general, we think of drugs, trauma, aspiration of amniotic fluid and edema as causes of apnea. These give us trouble in resuscitation. First, in resuscitating children or the newborn, we attempt to establish an airway by gentle but thorough suction. Intubation is used, if necessary, and then we ventilate the child.

There are many gadgets of various sorts that have been devised for use in this procedure, and I think it is our obligation to learn to use them. We spend time learning how to deliver the babies, and we spend time learning other skills that are essential in the practice of medicine. But if one is to assume the responsibility of establishing respiration in a newborn child, he must familiarize himself with the technics that are available to him.

The simplest apparatus for this task is the bag and mask, and perhaps that equipment is the best. It represents, I suppose, about a $10 investment, and one can learn to use it really well. Fancier gadgetry is unnecessary.

The development of pneumothorax in this child, I believe requires a little bit of comment. It is possible that too much pressure was applied. I would caution that the lung, the alveolus, or whatever it is that ruptured to give us pneumothorax, does not necessarily break because of too much pressure, but because it got too big. If we could apply pressure to the lung uniformly, the surrounding areas of lung would prevent any one area of lung from overdistending. In the newborn, however, the gas which we deliver may be channeled into the least resistant area, and there consequently is a danger of overdistention and rupture. These episodes, I think, are very, very uncommon, and I do not regard its happening as evidence that positive-pressure respiration should be abandoned.

I should like to say a word about mouth-to-mouth respiration. In that technic we employ equipment which all of us have with us all of the time, and it is probably as effective as any other, not only in resuscitating newborn infants but also in restoring respiration in any other person. We are always concerned about how much pressure one can apply. A few studies have been done, and the reports on them have indicated that it takes a pressure of between 60 and 90 cm. H_2O, applied over some time, to produce damage to the lungs consistently, and that it probably takes half that amount (30-45 cm. H_2O) to distend or inflate lungs which have previously been atelectatic. Thus, as I say, these pressures are of secondary importance to the pathology within the lung, which either allows or does not allow the pressure to be distributed evenly through the lung.

I am not attempting to cover the problem completely, but I should like just to mention a few figures having to do with the respiratory physiology of the newborn child. These are merely measurements which I have made. The first thing that we must remember, I think, is that the tidal volume of a newborn child is somewhere in the neighborhood of 15-25 cc. So that you might visualize that volume and get a clear idea of how small it is, I have brought with me an instrument which is variously called a "shot glass" or a "medicine glass." It is calibrated to 30 cc., and if filled to the brim is capable of holding twice that much. Thus, the capacity of a shot glass—60 cc.—represents three tidal volumes for a full-term newborn child. I think we should remember this when we are attempting to provide ventilation for such infants. The tidal volumes of premature infants have been measured as low as 5 cc., and though I have no way of knowing whether those were adequate tidal volumes, they have been recorded. If you will think of the capacity of a 5 cc. syringe, you will realize how small an amount that is. The rate of respiration in a newborn varies between 40 and 60 per minute.

If we keep these facts in mind and use our apparatus correctly, we can use positive-pressure resuscitation upon children who are apneic, as this child was, and who cannot be ventilated by any other means. More children, probably, are lost to asphyxia than are lost to traumatic efforts at resuscitation.

There is just one other thing that I should like to mention, and that is drugs. I mention them only to condemn them. Though all sorts of respiratory stimulants are available, to my knowledge they have no place in the resuscitation of newborn children.

Dr. MacQueen: When the baby did not respond to the procedures designed to encourage the onset of spontaneous respirations, we thought it necessary to obtain roentgenographic examinations, lest

there be some intrathoracic explanation for the problem. Therefore, while manual ventilation by anesthesia bag was continued, the child was taken to the X-ray Department.

Dr. Carl L. Gillies, Radiology: All of the radiographs were made during a single visit to the X-ray Department. One of them showed the great abdominal distention, the pneumothorax and the collapsed right lung. Another showed a diffuse calcification throughout the peritoneal cavity. Calcification within the abdomen of the newborn can come from peritonitis. Toxoplasmosis can produce this type of calcification, and it can also come from peritonitis following meconium ileus and from bile peritonitis. Occasionally, we can see diffuse calcification in a large abdominal tumor that has lost its blood supply.

Dr. MacQueen: We were acutely aware that there was bile in the peritoneum, and to be acceptable, our diagnosis had to explain that finding. Our clinical diagnosis lay between a ruptured segment of the biliary tree and meconium ileus with a ruptured viscus. On the basis of the radiographic finding, we added to the differential diagnosis the possibility of a toxoplasmosis with disseminated calcification in the abdominal cavity. Through the use of a syringe and a needle, Dr. Lawrence, of the Department of Thoracic Surgery, withdrew the air from the pneumothorax. Immediately, the baby looked much better, and her respirations became spontaneous. She was placed in an isolette for supportive care. Dr. Gius, of the Department of Surgery, was informed of the situation, and he agreed with us that if the patient's vital signs became stabilized, an exploratory laparotomy should be done. As the protocol has shown, the child's death 5½ hours after birth prevented us from carrying out that procedure.

Dr. J. R. Carter, Pathology: The abdomen of this child was greatly distended, and engorgement of the superficial abdominal veins was a conspicuous feature. The skin exhibited a slight icteric tinge. Virtually all peritoneal surfaces were covered by a thick, shaggy, bile-stained exudate consistent with that which results from bile peritonitis. The exudate had a doughy consistency, and one could discern rather large masses of pultaceous calcium in it. When the anterior chest wall was removed, bile staining of the mediastinal lymph nodes and the nodes along the internal mammary chain could be observed.

There were two small papillary masses protruding into the lumen of the bowel 30 cm. proximal to the ileocecal valve. Each of these masses measured between four and five millimeters in greatest diameter, and although a probe could be passed, there was partial bowel obstruction. Approximately two millimeters proximal to this obstruction, a perforation one millimeter in diameter was readily discernible. This was the only perforation that could be identified by passing water through the entire length of the bowel. The bowel mucosa proximal to the site of perforation and obstruction was bile-stained and contained a small amount of soft, bile-stained meconium. Distal to the point of obstruction, the bowel mucosa was not bile-stained, and the lumen of the entire distal segment of the small bowel, as well as the large bowel, contained worm-like and cast-like masses of inspissated, non-bile-stained, friable meconium. Furthermore, the bowel mucosa distal to the point of obstruction gave a sticky sensation to palpation, as compared with the normal mucosa proximal to the point of obstruction. It will be recalled that the polypoid masses causing the obstruction were approximately 10 cm. proximal to the area where a Meckel's diverticulum may be found in a child of this patient's age. There was no evidence of a Meckel's diverticulum.

Grossly, the pancreas was normal, but because of the findings just reviewed, it was nevertheless suspected that the child might have fibrocystic disease of the pancreas. This suspicion was confirmed when microscopic sections of the pancreas became available. Many of the acini and ducts of the pancreas were moderately dilated, and many of them contained acidophilic inspissated pancreatic secretion. There was a moderate amount of interstitial fibrosis, but virtually no inflammatory reaction was observed. Scattered foci of atrophic ducts and glands were also apparent. The massive cystic dilatation that one observes in a well-developed case of fibrocystic disease of the pancreas was not, of course, present in this child. Periodic acid-Schiff stains were employed, and with them one could appreciate even more the acidophilic mucoprotein material present in the ducts and glands.

Sections of the jejunum proximal to the point of obstruction revealed the essentially normal architectural pattern of the mucosa, with occasional bile plugs in the crypts of the mucosa. Sections through the polypoid masses that caused the obstruction revealed rather significant hypertrophy and hyperplasia of the submucosa only. The overlying mucosa was normal, as was the muscularis. Both polypoid masses showed similiar submucosal changes. These masses were not, strictly speaking, tumors, nor were they associated with any congenital bands or other anomalies. The pathogenesis of the masses remains obscure, but it is probable that their origin was congenital.

Sections through the bowel distal to the point of obstruction showed intensely PAS-positive material (meconium) in the bowel. It completely filled most segments of bowel, and in some areas actually distended it. There was, however, no excessive distention of any portion of the gastrointestinal tract. As a matter of fact, in some areas there was segmental constriction alternating with slight dilatation of the bowel. The goblet cells of the bowel, particularly from sections distal to the point of obstruction, were filled with PAS-positive mucoprotein material. Some of this secretory material could be seen extruding from the mucosa and mixing with the inspissated meconium. At this point, I might say that in so far as I am aware, no

alterations in the architectural pattern of the mucosa or any other part of the bowel have been described in fibrocystic disease of the pancreas.

The exudate covering the peritoneal surface was composed principally of fibrin and calcium, with scattered areas of fibrosis, sclerosis and chronic inflammatory cells. There was no significant acute or subacute inflammatory response. Organization of the exudate was noted in many areas, and histologically it was apparent that layering of the exudate had occurred. It was therefore apparent that the bile chemical peritonitis had been present for at least three weeks and possibly for even longer.

In summary, then, this patient had fibrocystic disease of the pancreas, with inspissated acholic meconium. There was obstruction, as indicated, with perforation of the ileum. There was no Meckel's diverticulum. Bile peritonitis was a conspicuous feature. Proteus vulgaris, Pseudomonas aeruginosa and Alcaligenes fecalis were cultured from the peritoneal exudate. Also, 200 ml. of bile-stained fluid was removed at the time of autopsy from the peritoneal cavity, thus making a total of 400 ml. that was removed. There was no evidence of the pulmonary changes so commonly observed in older children with fibrocystic disease of the pancreas. The glands of the trachea, larynx, bronchi and bronchioles were normal. There was, however, considerable atelectasis of both lungs, with numerous large emphysematous blebs along the free margins of each lung. There was no pneumonitis, but there were focal areas of pulmonary edema. The liver was entirely normal, the biliary system showing none of the changes sometimes observed in long-standing cases of fibrocystic disease. There was no cirrhosis, either focal or diffuse. There was, however, very mild fatty metamorphosis. Lastly, there was a congenital anomaly in the meninges of the cerebral sulci and of the right occipital lobe. This consisted of focal areas of telangiectasia. There was also a very small subdural hemorrhage, approximately one centimeter in diameter, in the right parietal area. These lesions had caused no secondary anatomical changes. The remainder of the central nervous system was normal.

Dr. MacQueen: Meconium ileus does not always take this immediate and severe course. Dr. Gius will discuss the surgical care of those patients in whom meconium ileus causes signs of intestinal obstruction soon after birth.

Dr. J. A. Gius, Surgery: Meconium ileus may produce the picture of acute intestinal obstruction in the neonatal period, and ordinarily it cannot be differentiated by clinical means from that which might result from mid-gut volvulus, atresia of the small intestine or other congenital anomalies of the alimentary tract. However, when the condition is complicated by perforation, peritonitis and intra-abdominal calcification, as in this case, the clinician will certainly think it probable that meconium ileus brought on the whole sequence.

This case is quite typical. My experience with this condition has not been great, but there have been several reports on it from children's hospitals in the Midwest and in the East. In mucoviscidosis, the main problem that faces the surgeon is the extremely tenacious nature of the material which produces the obstruction. At operation, there often is great difficulty in removing the material in order to open up a channel. The use of a solution of pancreatic trypsin to dissolve this material has been advised, but it is not entirely satisfactory. Three per cent hydrogen peroxide has also been used. The problem can best be resolved by a combination of mechanical irrigation and chemical solvents.

In some instances it is almost impossible to open up the entire bowel because of agenesis of the bowel beyond the point at which plugging has occurred. If a dependable anastomosis is impossible, then exteriorization of the afferent and efferent limbs of the small bowel at the site of the obstruction is advised. This, however, has very serious implications as regards the fluid and nutritional balance of the very small infant, and one cannot leave an external fistula for very long because serious depletion will soon follow.

No mention has been made of the possible relationship between the gastrointestinal condition encountered in this baby and polyhydramnios. Recently, a very interesting presentation was made by Dr. Clatsworthy, of Children's Hospital, Columbus, Ohio, at a meeting of the Central Surgical Association which was held there. He reported that in 220 cases of congenital obstruction in infants, there was a history of hydramnios in 14 per cent of the babies' mothers. The inference to be drawn from such studies as his is that when hydramnios has been encountered in a mother, one must consider the possibility of congenital anomalies in the gastrointestinal tract of her infant. Studies designed to rule them out should include: (a) gastric intubation; (b) aspiration of bile; and (c) x-ray of the stomach and duodenum. If esophageal obstruction is encountered, with tracheoesophageal fistula, atresia of the small bowel, malrotation or other such conditions, early intervention is indicated. Thus, one can give the child a better chance of survival than he would have if symptoms have been allowed to develop.

Dr. MacQueen: Let me summarize briefly. This infant had fibrocystic disease, and it resulted in meconium ileus. At the site of a perforation, the etiology of which is not understood, there was a leakage of meconium, and bile peritonitis occurred. There is no doubt that this process was present for a considerable time prior to birth. For reasons poorly understood, this child did not have the onset of adequate spontaneous respiration.

SUMMARY OF NECROPSY FINDINGS

The infant presented most of the classical lesions of mucoviscidosis. Fibrocystic disease of the pan-

creas was apparent microscopically, but not grossly. The pancreatic acini varied in size, shape and configuration. Some were atrophic; some were dilated; and many contained inspissated eosinophilic amorphous debris. Interstitial fibrosis was conspicuous.

The abdomen was greatly distended and tense. Virtually all peritoneal surfaces, visceral and parietal, were covered with a wet, sticky, shaggy, yellow-green plastic inflammatory exudate in which masses of amorphous calcium debris were present. The exudate was estimated to have been present for at least three weeks, as evidenced by areas of organization and scarring. The exudate was most marked over the dome of the liver, in the region of the porta hepatis and in the right abdominal gutter. The abdominal cavity contained 200 ml. of thin, bile-stained fluid.

Two small (3-4 mm.), polypoid soft masses of hyperplastic submucosa protruded into the lumen 30 cm. proximal to the ileocecal valve and caused partial bowel obstruction. Just proximal to these masses was a ragged perforation one millimeter in diameter—the source of the bile peritonitis. The entire bowel mucosa proximal to the obstruction was soft and bile-stained. Normal bile-stained meconium was present. The mucosa distal to the obstruction was pale, dry and sticky, and histologically showed typical changes of mucoviscidosis. In this segment (small and large bowel), there were friable, inspissated worm- and cast-like masses of meconium without bile pigment.

The glands of the larynx, trachea and bronchi revealed no evidence of mucoviscidosis. The bronchioles appeared normal, and no squamous metaplasia of glandular epithelium was found anywhere. The lungs revealed extensive focal atelectasis, with occasional foci of emphysema and mild edema, but no pneumonitis. Mediastinal and abdominal lymph nodes were hyperplastic and bile-stained. The skin was slightly icteric. The liver showed mild fatty metamorphosis and numerous foci of hematopoiesis. The leptomeningeal veins of the right occipital lobe and of each lateral cerebral fissure were telangiectatic. A small subarachnoid hemorrhage was present in the right parietal region.

The immediate cause of death was considered to be respiratory failure.

ANATOMIC DIAGNOSIS

1. Mucoviscidosis, with inspissated acholic meconium
2. Fibrocystic disease of the pancreas
3. Obstruction and perforation of ileum
4. Bile peritonitis
5. Atelectasis, with focal pulmonary edema
6. Meningeal telangiectasia and small subarachnoid hemorrhage.

Clinical Test of Promising Cancericidal Drug

Speaking before the western regional meeting of the U.S. Section of the International College of Surgeons, in Reno on August 22, Dr. Harry E. Bacon, head of proctology at Temple University, announced initial success in his attempts through chemotherapy to reduce the number of post-surgical recurrences of colon cancer.

He pointed out that various reports have shown a local cancer recurrence of between 14 and 26 per cent, and a resulting mortality of 15 per cent, following surgery for cancer of the colon and rectum. Available reports have also shown the presence of free cancer cells in the bowel in about 32 per cent of cases studied. There is also danger of seepage into the abdominal cavity. Since tumor cells are not prime targets for the new agent, Dr. Bacon felt that tests should first be made upon the cells freed during colon surgery.

Tests with the new chemical known as "Clorpactin XCB," he related, began in March of this year. "XCB has been shown to possess a definite cancericidal action against free viable cells, singly or in clusters," he reported. "This action occurs within three minutes after contact. The mode of action is by liberation of hypochlorous acid in both liquid and gaseous forms, the end result being oxychlorination of individual cells."

Dr. Bacon explained that the chemical was customarily used in a 0.5 per cent solution. On the morning of surgery it was given as a retention enema to about the level of the lesion. Later, when the abdomen had been opened, the growth was immediately covered with a thick gauze pack saturated with the Chlorpactin solution and tied above and below the tumor. Some of the solution was also injected into the bowel. Throughout the operation, all of the surgical gloves and instruments were dipped in basins containing the chemical. At the end of the operation, the peritoneal cavity was thoroughly washed with the solution, as was the wound after closure of the peritoneum. "Repeatedly," Dr. Bacon declared, "we have employed as much as 1,000 cc. in the peritoneal cavity, and at no time have harmful effects on normal tissue been observed. While the exposed tissue may turn a dark brown color, the chemical does not appear to interfere with normal growth or satisfactory wound healing."

Dr. Bacon did not have any statistics to present, for a sufficient time had not elapsed since the start of the tests. Rather, he said that his belief in the efficacy of the chemical rests, for the time being, rests upon the proved potential of XCB and upon the absence of side effects in the patients upon whom he has used it.

Coming Meetings

In State

Oct. 3	**Conference on Children and Youth.** State Teachers College, Cedar Falls
Oct. 8-9	**Anesthesia for the Part-time Anesthetist (Iowa Society of Anesthesiologists; Division of Anesthesiology, Department of Surgery, SUI College of Medicine).** Medical Amphitheater, University Hospitals, Iowa City
Oct. 10-11	**Radiology (Iowa Radiological Society, Iowa Division of American Cancer Society and Department of Radiology of SUI).** University Hospitals, Iowa City
Nov. 21-22	**Clinical Physical Medicine and Athletic Injuries (Department of Orthopedics, Division of Physical Medicine, and the Iowa Chapter of Arthritis and Rheumatism foundation).** University Hospitals, Iowa City

Out of State

Oct. 1-3	**Institute on Chronic Schizophrenia and Hospital Treatment Programs.** Osawatomie State Hospital, Osawatomie, Kansas
Oct. 1-4	**California Division, American Cancer Society Annual Meeting.** Fairmont Hotel, San Francisco
Oct. 2-4	**American Association of Medical Clinics.** Palace Hotel, San Francisco
Oct. 2-4	**American Association for the Surgery of Trauma.** Drake Hotel, Chicago
Oct. 2-4	**Central Association of Obstetricians & Gynecologists.** Hotel Leamington, Minneapolis
Oct. 2-4	**Clinical Orthopaedic Society.** Brown Palace Hotel, Denver
Oct. 2-4	**Midwest Cardiac Conference: Rheumatic Fever and Rheumatic Heart Disease.** Town House Motel, Omaha
Oct. 3	**Cardiac Resuscitation.** Emory U. School of Medicine, Atlanta
Oct. 3-4	**International College of Surgeons, Alabama Surgical Division Meeting.** Medical College of Alabama, Birmingham
Oct. 3-4	**Oregon-Oklahoma Combined Specialty Meeting for Practicing Physicians.** U. of Oklahoma Medical Center, Oklahoma City
Oct. 3-4	**Pacific Northwest Society of Pathologists.** Priest Lake, Idaho
Oct. 3-5	**Western Industrial Health Conference, Western Industrial Medical Association.** Claremont Hotel, Berkeley
Oct. 5-8	**Tenth Annual Scientific Assembly, California Academy of General Practice.** Masonic Temple, San Francisco
Oct. 6-8	**Obstetrics for Specialists.** U. of Minnesota, Minneapolis
Oct. 6-9	**First Institute on Veterinary Public Health Practice (U. of Michigan School of Public Health).** Rackham Building, Ann Arbor
Oct. 6-10	**American College of Surgeons.** Chicago
Oct. 6-10	**Dermatology & Sphilology (For Pediatricians).** N.Y.U., N.Y.C.
Oct. 6-10	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 6-17	**Electrocardiography.** Cook County Graduate School of Medicine, Chicago
Oct. 8	**Pediatric Diagnostic Problems.** U. of Oklahoma Medical Center, Oklahoma City
Oct. 8-9	**Los Angeles County Heart Association, Professional Symposium.** Wilshire-Ebell Theatre, Los Angeles
Oct. 8-11	**National Association for Retarded Children, Inc.** Philadelphia
Oct. 9-11	**Psychosomatic Aspects of Internal Medicine (Academy of Psychosomatic Medicine).** Park Sheraton Hotel, New York City
Oct. 9-11	**American Clinical & Climatological Association.** Otesaga Hotel, Cooperstown, New York
Oct. 10	**New England Rheumatism Society.** New Ocean House, Swampscott, Massachusetts
Oct. 10-11	**Advances in Anesthesia & Resuscitation.** U. of Wisconsin Medical School, Madison
Oct. 10-11	**Interim Meeting, Association of American Physicians & Surgeons.** Chicago
Oct. 10-11	**Symposium on Viruses and Viral Disease, Kaiser Foundation Hospitals of Northern California.** Hotel Fairmont, San Francisco
Oct. 11-12	**North Central Medical Conference.** Hotel Leamington, Minneapolis
Oct. 12	**American Otorhinologic Society for Plastic Surgery.** Conrad Hilton Hotel, Chicago
Oct. 12-17	**Medical Society of Virginia.** Hotel Jefferson, Richmond
Oct. 12-17	**American Academy of Ophthalmology & Otolaryngology.** Palmer House, Chicago
Oct. 12-17	**American Society of Plastic & Reconstructive Surgery.** Drake Hotel, Chicago
Oct. 12-17	**Medical Society of the State of Pennsylvania.** Bellevue-Stratford Hotel, Philadelphia
Oct. 12-25	**International College of Surgeons Postgraduate Course.** Cook County Graduate School of Medicine, Chicago
Oct. 13-15	**Association of American Medical Colleges.** Ocean House, Swampscott, Massachusetts
Oct. 13-15	**Indiana State Medical Association.** Murat Temple, Indianapolis
Oct. 13-16	**American Association of Medical Record Librarians.** Statler Hotel, Boston
Oct. 13-17	**Clinical Cardiopulmonary Physiology (American College of Chest Physicians).** Edgewater Beach Hotel, Chicago
Oct. 13-17	**Second Annual Postgraduate Week.** New York Academy of Medicine, New York City
Oct. 13-17	**Clinical Cardiopulmonary Physiology (American College of Chest Physicians).** Edgewater Beach Hotel, Chicago
Oct. 13-17	**The Physiological Basis of Internal Medicine (American College of Physicians).** Duke University, Durham, North Carolina
Oct. 13-24	**Basic Principles in General Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 13-24	**Office & Operative Gynecology.** Cook County Graduate of Medicine, Chicago
Oct. 13-24	**Two-Week Intensive Course in Urology.** Cook County Graduate School of Medicine, Chicago
Oct. 13-25	**Surgery (U. S. Section, International College of Surgeons).** Cook County Hospital, Chicago
Oct. 14-Nov. 18	**Fifth Annual Fort Miley Surgical Clinics and Symposia (San Francisco Academy of General Practice, Faculties of Stanford & U. of California Schools of Medicine).** Fort Miley Veterans Administration Hospital, San Francisco
Oct. 15-16	**Hematology.** U. of Nebraska College of Medicine, Omaha
Oct. 15-17	**Sixth Symposium on Antibiotics** (Journals ANTIBIOTICS AND CHEMOTHERAPY & ANTIBIOTIC MEDICINE AND CLINICAL THERAPY). Willard Hotel, Washington, D. C.
Oct. 15-18	**Mississippi Valley Conference on Tuberculosis.** Biltmore Hotel, Dayton
Oct. 16-17	**Homecoming Course, Advances in Diagnosis & Treatment Developed in Last Five Years.** U. of Southern California, Los Angeles
Oct. 16-17	**Oregon Academy of General Practice.** Portland
Oct. 16-30	**Ante-partum Care** (Woman's Hospital, Div. of St. Luke's Hospital). New York City
Oct. 16-30	**Conduct of Labor and Delivery** (Woman's Hospital, Div. of St. Luke's Hospital). New York City
Oct. 17-18	**Fourth Annual Meeting, American Rhinologic Society.** Palmer House, Chicago
Oct. 17-18	**Central Neuropsychiatric Association.** Deshler-Hilton Hotel, Columbus
Oct. 17-19	**Annual Meeting, California Society of Internal Medicine.** Ahwahnee Hotel, Yosemite
Oct. 17-19	**Review of Critical Pulmonary Problems (Colorado Chapter, American College of Chest Physicians, Colorado Heart Study Club).** U. of Colorado Medical Center, Denver
Oct. 19-24	**American Society of Anesthesiologists.** Penn-Sheraton Hotel, Pittsburgh
Oct. 20-23	**American Academy of Pediatrics.** Palmer House, Chicago
Oct. 20-24	**Blood Vessel Surgery.** Cook County Graduate School of Medicine, Chicago

Oct. 20-28	**Twenty-third Annual Convention, American College of Gastroenterology.** Jung Hotel, New Orleans
Oct. 20-31	**General Review Course in Medicine.** Cook County Graduate School of Medicine, Chicago
Oct. 20-31	**Laboratory Methods in Diagnosis of Tuberculosis.** USPHS Communicable Disease Center, Chamblee, Georgia
Oct. 22-24	**Association of Life Insurance Medical Directors of America.** Statler Hotel, Hartford, Connecticut
Oct. 22-24	**Association of State & Territorial Health Officers.** Hotel Washington, Washington, D. C.
Oct. 22-24	**Aviation Medicine.** U.C.L.A., Los Angeles
Oct. 22-25	**Western Orthopedic Association.** Multnomah Hotel, Portland, Oregon
Oct. 23-24	**Gulf Coast Clinical Society.** Pensacola, Florida
Oct. 23-24	**Eastern Psychiatric Research Association, Inc.** Brooklyn State Hospital, Brooklyn
Oct. 23-25	**Dermatology for General Physicians.** U. of Minnesota, Minneapolis
Oct. 23-25	**Southwestern Medical Association.** Pioneer Hotel, Tucson, Arizona
Oct. 24-26	**American Society for the Study of Arteriosclerosis.** Hotel Whitcomb, San Francisco
Oct. 24-28	**American Heart Association Scientific Sessions & Meetings.** Fairmont Hotel & Civic Auditorium, San Francisco
Oct. 26-28	**Psychiatric Orientation for General Practice (U. of California).** Herrick Hospital, Berkeley
Oct. 26-31	**American School Health Association.** St. Louis
Oct. 27-29	**Oklahoma City Clinical Society.** Biltmore Hotel, Oklahoma City
Oct. 27-31	**American Public Health Association.** Kiel Auditorium, St. Louis
Oct. 27-31	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Oct. 27-31	**Surgery of Colon & Rectum.** Cook County Graduate School of Medicine, Chicago
Oct. 27-Nov. 7	**General & Surgical Obstetrics.** Cook County Graduate School of Medicine, Chicago
Oct. 27-Nov. 7	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Oct. 28	**New England Pediatric Society.** Boston
Oct. 29	**Providence Hospital Seminar.** New Hospital, Holyoke, Massachusetts
Oct. 29-30	**Twenty-eighth Annual Professional Symposium, Los Angeles County Heart Association.** Wilshire-Ebell Theatre, Los Angeles
Oct. 29-31	**American Cancer Society.** New York City
Oct. 29-31	**Annual Meeting, Society for Clinical & Experimental Hypnosis.** Morrison Hotel, Chicago
Oct. 29-Nov. 1	**Congress of Neurological Surgeons.** St. Francis Hotel, San Francisco
Oct. 30-Nov. 1	**Ninth Annual Conference, National Association for Music Therapy.** Netherland-Hilton Hotel, Cincinnati
Oct. 30-Nov. 1	**Special Cardilogical Sessions, Hawaii Heart Association, Inc.** Princess Kaiulani Hotel, Honolulu
Oct. 30-Nov. 1	**Tenth Western Institute on Epilepsy.** U. of Colorado School of Medicine, Denver
Oct. 31	**Heart Disease (San Diego County Heart Association).** U. S. Naval Hospital, San Diego
Oct. 31-Nov. 1	**Canadian Society for the Study of Fertility.** London, Ontario, Canada
Oct. 31-Nov. 1	**Central Society for Clinical Research.** Drake Hotel, Chicago
Oct. 31-Nov. 2	**Second Annual Meeting, American Association of Medical Assistants.** Palmer House, Chicago
Nov. 1	**Professional Symposium (Santa Barbara County Heart Association).** Biltmore Hotel, Santa Barbara
Nov. 1-5	**College of American Pathologists.** Congress Hotel, Chicago
Nov. 2-8	**American Society of Clinical Pathologists.** Congress Hotel, Chicago
Nov. 2-8	**Sixth Inter-American Congress of Radiology.** Lima, Peru
Nov. 3-5	**Arthritis and Rheumatoid Disease.** U. of California, San Francisco
Nov. 3-5	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 3-6	**Twenty-sixth Annual Scientific Sessions, Omaha Midwest Clinical Society.** Sheraton-Fontenelle Hotel, Omaha
Nov. 3-6	**Southern Medical Association.** New Orleans
Nov. 3-7	**Pediatric Radiology for Radiologists.** U. of Minnesota, Minneapolis
Nov. 3-7	**Selected Subjects in Internal Medicine (American College of Physicians).** Mayo Clinic, Rochester, Minnesota
Nov. 3-14	**Clinical and Didactic Course in Dermatology.** Cook County Graduate School of Medicine, Chicago
Nov. 3-14	**Gastroscopy and Gastroenterology.** Cook County Graduate School of Medicine, Chicago
Nov. 4-6	**New England Postgraduate Assembly.** Statler Hotel, Boston
Nov. 4-7	**American Society of Tropical Medicine and Hygiene.** Hotel Deauville, Miami Beach
Nov. 6-8	**General Practice.** U. of Wisconsin Medical School, Madison
Nov. 6-8	**Eleventh Annual Scientific Meeting, Gerontological Society, Inc.** Bellevue Stratford Hotel, Philadelphia
Nov. 6-8	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
Nov. 7	**Symposium on Sexual Problems as Seen in General Practice.** U. of Southern California, Los Angeles
Nov. 7	**Urology.** U. of California, San Francisco
Nov. 8	**Proctology.** U. of California, San Francisco
Nov. 8-9	**Annual Meeting, California School Health Association.** Hacienda Hotel, Fresno
Nov. 8-9	**Ninth Annual County Medical Societies Civil Defense Conference (AMA Countil on National Defense).** Morrison Hotel, Chicago
Nov. 8-9	**Removal of Foreign Bodies From Lung and Bronchi.** U.C.L.A., Los Angeles
Nov. 10-13	**Forty-third International Scientific Assembly, Interstate Postgraduate Medical Association.** Auditorium and Hotel Statler, Cleveland
Nov. 10-14	**Gastroenterology (American College of Physicians).** University Hospital, Ann Arbor
Nov. 10-15	**Diseases of the Chest (Council on Postgraduate Medical Education of the American College of Chest Physicians).** Park-Sheraton Hotel, New York City
Nov. 10-21	**American Board Review Course in Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 10-21	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Nov. 12-13	**Michigan Academy of General Practice.** Sheraton-Cadillac Hotel, Detroit
Nov. 12-15	**Second Oklahoma Colloquy on Advances in Medicine, Arthritis and Related Disorders (Department of Medicine, U. of Oklahoma, Division of Postgraduate Education, Geigy Pharmaceuticals, Wyeth Laboratories, Upjohn Co., Pfizer Laboratories and Schering Corp.).** U. of Oklahoma, Oklahoma City
Nov. 13	**Plastic Surgery.** U. of California, San Francisco
Nov. 13-15	**Inter-Society Cytology Council.** Hotel Statler, New York City
Nov. 14	**Hand Surgery.** U. of California, San Francisco
Nov. 14-15	**Minor Surgery.** U.C.L.A., Los Angeles
Nov. 15	**New Look in Speech Problems.** U. of California, San Francisco
Nov. 16-20	**National Society for Crippled Children and Adults.** Statler Hilton Hotel, Dallas
Nov. 16-21	**Radiological Society of North America.** Palmer House, Chicago
Nov. 17	**Second Annual Symposium on Diabetes, Chicago Diabetes Association.** Drake Hotel, Chicago
Nov. 17-18	**International College of Surgeons, Mid-Atlantic Regional Meeting.** The Homestead, Hot Springs, Va.
Nov. 17-19	**Association of Military Surgeons of the U. S.** Hotel Statler, Washington, D. C.
Nov. 17-19	**Fractures for General Physicians.** U. of Minnesota, Minneapolis
Nov. 17-21	**Ophthalmic Plastic Surgery (for Specialists)** N.Y.U., N.Y.C.
Nov. 17-21	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago

(continued on page lxix)



PHYSICIAN DISTRIBUTION

A survey of Polk County doctors and some comparisons between them and the group of physicians who served the same area 25 years ago are reviewed in the current (August-September) issue of the POLK COUNTY MEDICAL BULLETIN. The figures presented there are interesting in themselves, but more importantly, we think, they suggest the desirability of a study—perhaps a more comprehensive one—of doctor-distribution throughout the state of Iowa.

In 1933, there were 227 practicing doctors of medicine in Des Moines and rural Polk County, and their median age was 49+ years; now, there are 243 M.D.'s in private practice there, and their median age is 45+ years. In addition, 11 are engaged in full-time industrial or insurance work; five have full-time public health positions; 25 are full-time employees of the Veterans Administration; 37 are taking residency training in Des Moines hospitals; and 29 are serving internships. Thus, the community has 321 fully qualified doctors currently in practice, and—counting the internes—350 M.D.'s actively engaged in medical work. Twenty-five doctors of medicine living in Polk County are at present not in practice.

The Polk County report contains some figures on specialization, but provides no break-down. Between 1933 and 1958, the percentage of Des Moines physicians with limited practices has risen from 72 to 75. Fifty-two per cent of the specialists are diplomates of their respective American boards, and 57 per cent of the general practitioners are members of the Iowa Academy of General Practice.

Of all the doctors in private practice in Des Moines and the rest of Polk County, 55 per cent are Iowa born, and of that number 67 per cent are graduates of the S.U.I College of Medicine. Of those born in other states, about one-third hold degrees from S.U.I., and one of the six foreign-born doctors is a graduate of our State University.

In 1933, about 92 per cent of all eligible doctors of medicine in Polk County were members of the county medical society, and 86 per cent of those under the age of 70 were members of the AMA. Today, all eligible physicians are members of the county society, and better than 99 per cent of those under 70 years of age pay AMA dues.

A like survey covering all of the doctors of medicine in the state would serve a number of purposes. First, it would indicate the adequacy, or the faults, of present doctor-distribution in each of the 99 counties, and it would suggest the areas where it is likely that medical service may become hard to get unless more and younger doctors are persuaded to move in during the next few years. Second, it would show the distribution of specialists—preferably subdivided by types—among the smaller cities and rural areas of the state. Third, it would show at which schools the doctors currently practicing received their training and whence, in proportionate numbers, it is reasonable to expect that the state can expect to get replacements.

The job of surveying the entire state would be a big one. On the basis of numbers alone, it would be seven times larger, and it seems that a state-wide study should provide answers to several questions that weren't touched upon in the Polk County study.

NUTRITION EDUCATION

In recent months, the officers of the ISMS have taken special interest in the public health activities of the Medical Society of the State of Pennsylvania. Some of them, in fact, made a trip to Harrisburg so that they might talk over the "Pennsylvania Plan" with some of the physicians who know it best.

The Pennsylvania Society has reason to be proud, among other things, of the activities of its Commission on Nutrition. First, that group provided a number of editorials on various aspects of applied nutrition to the Society's journal. Then it prepared exhibits for the Society's annual meeting. Those dealt with obesity, electrolytes and salt-free diets. Next, it established a coordinating committee containing representatives of medical societies, dental societies, nurse organizations, etc. to make a survey of nutritional training in hospitals.

The coordinating committee learned, not surprisingly, that most hospitals were offering little or no training in nutrition to interns and residents. In consequence, the coordinating committee prepared a manual of standard and therapeutic diets and distributed copies free of charge to senior medical students in the state's six medical schools. And it cooperated with the Pennsylvania Heart Association in the preparation of a manual on salt-free diets for free distribution.

The Pennsylvania Society's Commission on Nutrition proposes the establishment of a division of nutrition within each city health department to accomplish the following purposes: (1) the promotion of better public health through research and special clinics; (2) the prevention of diseases arising from public ignorance in this field; (3) direct participation in prenatal clinics, maternal

nutrition studies and school nutrition projects; and finally (4) rehabilitation of persons suffering from obesity, nutritional anemia, diabetes, etc. The Pennsylvania Society suggests that the staff of such a unit should consist of physicians—one of them a psychiatrist—dieticians and social workers.

It seems clear that a great deal may be done by a state medical society in promoting good nutrition in connection with its efforts at improving the health of all the people in its area.

PLEASE LET THE JOURNAL KNOW!

We find that in the September issue of the JOURNAL, we missed announcing three important seminars scheduled to take place during that month within the state of Iowa. We are very, very sorry about those omissions, but we feel that the men whose job it was, respectively, to publicize each of those meetings should share our regret.

Remembering the regularity and alacrity with which they throw half or two-thirds of their incoming circulars into the wastebasket, all doctors are sure to agree with us that direct-mail announcements of coming medical programs can't be 100 per cent effective. Additional publicity must be issued. Thus, though we are aware that JOURNAL announcements miss catching the eyes of some doctors, we think every program chairman should consider it a highly important part of his job to send information to us—*and to send it at least six weeks before his conference is to begin.*

THE PUBLIC IS AVID FOR MEDICAL NEWS

The American public has a tremendous appetite for scientific news—especially medical—according to a survey recently completed by the Institute for Social Research at the University of Michigan. Much of the study was concerned with medical news and its reading public. It revealed, for example: (1) Medical reading is more prevalent among women than among men. (2) Medical reading increases with age, but there is a sudden drop as people reach 65 years of age. (3) The West leads in the percentage of people who read all medical news; the South and the Northeast trail. (4) The science consumer retains a lot of what he reads or hears. (5) Medical information constitutes the bulk of scientific data that can be applied to everyday life. (6) The science consumer prefers to get his news through written media.

Forty-one per cent of newspaper readers told interviewers that they read *all* medical and health news; 35 per cent said they read some; 13 per cent said they only glance at it; and only 10 per cent said they skip over it.

Thus, it would seem apparent that, particularly in our section of the country, and especially in our newspapers, organized medicine would be wise to continue and indeed to increase its releases of authentic medical information intended for lay readers.

DOCTORS, HOSPITALS AND UNTOWARD EVENTS

The traditional doctrine of immunity for hospitals as charitable corporations has just about been abandoned by our courts, and we will see more and more lawsuits against hospitals and doctors unless effective cooperation can provide the "preventive medicine" which will eliminate the cause and conditions that give rise to suits for malpractice and negligence.

In the care of hospital patients, let us assume that everyone does his best—doctor, nurse, technician, etc., and it is fair to assume this, because in our accredited hospitals there is rarely evidence of malpractice or negligence in the moral sense even though legal judgments may be otherwise. Nevertheless, it is inevitable that tragedies will occur—some from human error, some from causes still beyond our knowledge and control. Untoward reactions to anesthetics and medications generally, elderly and even not so elderly patients falling —these are conditions which may still be with us for a long time to come, in spite of our best precautionary measures.

What, then, must be done to stem the tide of legal action? First, we must be sure that we are taking the best precautions, and this requires continuous and effective cooperation, primarily between the medical and nursing staffs, but in a larger sense between the medical staff and the administration of the hospital itself. Perhaps the best evidence of good care from a legal as well as a medical standpoint is an adequate patient record in which doctors' notes and nurses' notes reflect the quality of the care rendered. Copious notes written after the event are not impressive when inadequate notes raise doubts as to the management of the case prior to the unfortunate occurrence. When an untoward event occurs, it is imperative that a prompt and frank statement of what has happened be made to the next of kin, but this should not include an attempt to explain the inexplicable, and certainly should not include any attempt to fix blame. The medical examiner should be consulted, but if he chooses not to accept the case, nevertheless, every effort should be made to secure permission for an autopsy.

If we have done our best, and can so state with conviction and can convey to the relatives of the deceased our earnest desire to find out the cause of the untoward event by the only means that is likely to give us an adequate explanation —the autopsy—the family will not lose their confidence, and the number of malpractice and negligence suits will be greatly reduced.

—WESTCHESTER MEDICAL BULLETIN
26:20, (July) 1958.

President's Page

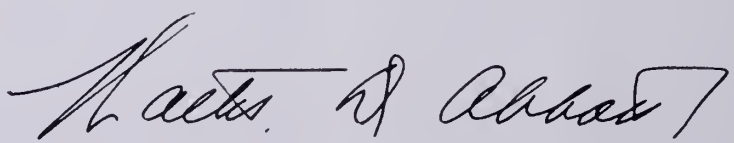
Statistics show that while the population of this country has doubled in the past quarter-century, the number of senior citizens has increased fourfold. It may quadruple again in the next 25 years, for rather than being merely an accident, this increased longevity is almost certainly the result of improvements that have been made in medical and hospital care.

With full realization of their obligation to provide for the special needs of this rapidly growing class of people, the national leaders in the health field undertook last spring to form the Joint Council to Improve the Health Care of the Aged, consisting of representatives of the American Dental Association, the American Hospital Association, the American Nursing Home Association and the American Medical Association.

This Joint Council is now studying proposals for facilitating proper care for elderly people of limited means, and it is cooperating with the insurance industry, including Blue Cross and Blue Shield, in an effort to make more and better health insurance available to senior citizens.

Grass-roots efforts in undertakings such as this are always highly appropriate in our democracy, and I am pleased to inform you that a similar Joint Council on Health Care of the Aged has been formed in Iowa, made up of members representing the Iowa State Dental Society, the Iowa Hospital Association, the Iowa Nursing Home Association and your State Medical Society.

Thus, it appears that we are on our way locally to tap our resources of community leadership and enterprise so that in the future the lives of all elderly people may be enriched—even yours and mine.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

IDEALS IN MEDICINE, A CHRISTIAN APPROACH TO MEDICAL PRACTICE, ed. by *Vincent Edmunds*, M.D., M.R.C.P., and *C Gordan Scorer*, M.D., F.R.C.S. (Chicago, The Christian Medical Society, 1958. $. . . .).

RETICULAR FORMATION OF THE BRAIN: HENRY FORD HOSPITAL INTERNATIONAL SYMPOSIUM, ed. by *Herbert H. Jasper*, M.D., *Lorne D. Proctor*, M.D., *Robert S. Knighton*, M.D., *William C. Noshay*, M.D., and *Russell T. Costello*, M.D. (Boston, Little, Brown and Company, 1958. $16.00).

HUMAN PARTURITION: NORMAL AND ABNORMAL LABOR, by *Norman F. Miller*, M.D., *T. N. Evans*, M.D., and *R. L. Haas*, M.D. (Baltimore, The Williams & Wilkins Company, 1958. $7.50).

CALLANDER'S SURGICAL ANATOMY, FOURTH EDITION, by *Barry J. Anson*, Ph.D., and *Walter G. Maddock*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $21.00).

EMERGENCY TREATMENT AND MANAGEMENT, SECOND EDITION, by *Thomas Flint, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $8.00).

NEGROES AND MEDICINE, by *Dietrich C. Reitzes*, M.D. (Cambridge, Mass., Harvard University Press, for the Commonwealth Fund, 1958. $7.00).

BOOK REVIEWS

CHEMISTRY AND BIOLOGY OF MUCOPOLYSACCHARIDES (A CIBA FOUNDATION SYMPOSIUM), ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Maeve O'Connor*, B.A. (Boston, Little, Brown and Co., 1958. $8.50).

This book is the end result of a three-day conference (Apr. 23-25, 1957) on a long known but little understood group of compounds. For this study, it was agreed in advance that mucopolysaccharides are carbohydrate-amino acid complexes which cannot yet be described in exact terms. The participants were American, British and other European authorities in the field. Because of the heterogeneity of the compounds, it was understood at the outset that any one of the participants would have difficulty in understanding and appreciating completely all aspects of the problems discussed.

The first paper deals with the general chemistry of the mucopolysaccharides, and outlines various technics used in the laboratories of M. Stacey, at the University of Birmingham, in the study of the structures of carbohydrate compounds. Subsequent papers deal with physiochemical studies of hyaluronic acids, immunochemical approaches to the structures of polysaccharides and mucopolysaccharides, and the biosynthesis of certain mucopolysaccharides, as well as their pharmacologic effects. Several papers deal with polysaccharide constitutents of various tissues, body fluids and bacteria, and the relationships of mucopolysaccharides to blood-group specificity and influenza viruses.

The papers are highly technical and are centered around research. Those engaged in biochemical, immunochemical and, possibly, histochemical studies will find much valuable information in them.

—*F. C. Coleman*, M.D.

ORR'S OPERATIONS OF GENERAL SURGERY, THIRD EDITION, by *George A. Higgins*, M.D., and *Thomas G. Orr, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1958. $20.00).

This new edition continues the format established by Dr. Orr, Sr. The changes include a modernization of the cardiovascular and pulmonary sections, plus a new section on head and neck surgery. The illustrations are plentiful and of outstanding quality, and the text supplies brief but pertinent comments regarding indications for surgery and surgical technics.

The book is so well illustrated and the presentation is so direct that non-surgeons will continue to find it helpful in refreshing their knowledge of operative procedures. For the surgeon, it will provide a ready reference and bibliography covering both general surgery and the sub-specialties.

It can be heartily recommended for all physicians.

—*Alfred N. Smith*, M.D.

CLINICAL ENZYMOLOGY, ed. by *Gustav J. Martin*, Sc.D. (Boston, Little, Brown and Company, 1958. $6.00).

The author of this book set out to outline the basic knowledge essential to an understanding of enzymology, to review the biochemistry of enzymes, to survey the current status of clinical enzymology and to offer suggestions for further application of enzymology in the care of patients. The parenteral administration of enzymes, and their systemic actions and therapeutic effects are discussed.

The book is divided into sections to familarize the reader with the relevant background, chemistry and clinical scope of enzymology. The scheme is logical, but it leads to some repetition and some lack of continuity.

Stress is laid on the basic plasticity of the protein moiety and on the macromolecular make-up in biological systems. The chapters on protein biology and enzyme chemistry give the reader a factual background, and they are followed by a discussion of enzymic biochemistry in the light of animal experiments and parenteral usage in man.

Perhaps the most interesting part of the book, from the point of view of the physician, is that which deals with the diagnostic use of enzymes. It is perhaps an in-

dication of the rapid developments which are taking place in this field that transaminase is mentioned only briefly, and aldolase and lactic dehydrogenase not at all. Future clinical potentialities are strikingly brought home by references to elastase and its potential application in arteriosclerosis, to collagenase and its use in the "collagen diseases," and to ribonuclease and its relationship to the therapy of some types of cancer.

The book is well bound, has readable print and contains extensive references. The less technical parts of it are easy to read and understand, and since it discusses all phases of enzymatic action, it will be of interest to both physicians and biological scientists.

—*F. C. Coleman,* M.D.

1957-1958 YEAR BOOK OF MEDICINE, ed. by *Paul B. Beeson,* M.D., *Carl Muschenheim,* M.D., *William B. Castle,* M.D., *Tinsley R. Harrison,* M.D., *Franz J. Ingelfinger,* M.D., and *Philip K. Bondy,* M.D. (Chicago, The Year Book Publishers, Inc., 1957. $7.50).

This Year Book lives up to the standards set by its predecessors in giving a bird's-eye view of advances in the field of internal medicine which have taken place during the past year. The articles have been abstracted from both American and foreign literature, and for the most part seem to have been selected on the basis of the newness of the concepts or developments which they represent. Concise and pointed commentaries by the exceptionally well qualified editors have added a great deal to the value of the work.

There is a tremendous amount of information to be found in the 726 small pages. The book is particularly recommended to those who want to review new developments in the field of internal medicine with a minimum of effort. —*Charles H. Gutenkauf,* M.D.

THE CHRONICALLY ILL, by *Joseph Fox,* Ph.D. (New York City, The Philosophical Library, Inc., 1957. $3.95).

This book is a thoughtful statistical and philosophical description of chronic illness as it exists in the United States today. The proper attitudes for relatives, physicians and institutions are described, and the need for rehabilitation units and for reorientation of physicians and hospitals toward the problems of the chronically ill is pointed out. The sociological implications both for patient and relatives are sympathetically presented.

This is a timely book by one who has had great experience in this field.—*Charles H. Gutenkauf,* M.D.

ORTHOPEDIC DISEASES: PHYSIOLOGY, PATHOLOGY, RADIOLOGY, by *Ernest Aegerter,* M.D., and *John A. Kirpatrick, Jr.,* M.D. (Philadelphia, W. B. Saunders Co., 1958. $12.50).

This excellent volume for the first time combines the physiology and the pathology of diseases of bone as correlated with radiologic findings.

Too frequently, the clinician is somewhat handicapped by a lack of complete understanding of the cellular and intracellular aspects of bone morphology and function. With the advent of bone microscopy, these basic essentials are better understood than they used to be. After giving a basic discussion of these principles, the authors clearly explain the pathologic changes found in bone. Excellent illustrations, both from the pathologist and the roentgenologist, have been used to illustrate the text.

This volume should prove a boon to every physician, and particularly to those who concern themselves with bone pathology. —*Everett M. George,* M.D.

FUNDAMENTALS IN CARDIOLOGY, by *John B. Wild,* M.D. (Springfield, Illinois, Charles C Thomas, 1958. $4.50).

This 80-page text demonstrates the physiologic results of normal and abnormal function of the heart. Physiologic explanations of abnormal physical signs are presented. —*John E. Gustafson,* M.D.

CORRESPONDENCE COURSE IN HEMATOLOGY

Claiming that it is the first medical school to undertake such instruction, the University of Kansas Medical Center will inaugurate a correspondence course when, on October 27, it mails out the first of nine monthly lessons in Hematology—Course I.

This course, prepared and edited by Sloan J. Wilson, M.D., and William E. Larsen, M.D., of the Section of Hematology at the University of Kansas School of Medicine, is designed to present the most frequently observed hematologic disorders.

Each of the nine lessons is a case report, and includes 35 mm. colored photomicrographs of peripheral blood and bone marrow preparations, together with complete clinical and laboratory data. Reproductions of electrophoretic patterns and roentgenograms are included to present important findings.

A question and preliminary study section is mailed to the enrollee on the last Monday of each month. Two weeks afterward, the answers and a discussion of the hematologic disease concerned are forwarded.

All materials become the property of the enrollee, consisting—at the completion of the course—of a labeled notebook, complete data on the study cases, a discussion of each disease illustrated by the study cases, and the colored photomicrographs and photographs.

An examination is provided at the completion of the course for physicians who desire to obtain Category I credit (total hours as yet undetermined) from the American Academy of General Practice. Course II will be available to those who complete Course I.

The fee for the course in $45, payable in advance. Applicants for enrollment should address the Department of Postgraduate Medical Education, University of Kansas School of Medicine, Kansas City 12, Kansas. Late enrollments will not be accepted.



FOLLOW-UP WORK AFTER ELECTROSHOCK THERAPY

W. A. TICE, M.D.

WATERLOO

Because mental illness sometimes reappears after electroshock therapy, some people mistakenly think the technic is capable of producing no real cure. Properly, however, the blame for recurrences shouldn't be put upon the mode of treatment, for the difficulty arises from what we might well call a "reinfection."

After a physically debilitating illness, a patient often needs a special diet or perhaps some medication designed to protect him from pathogenic bacteria during his convalescence. Similarly, a psychiatric patient needs psychotherapy if he is successfully to resist the environmental stresses to which he originally succumbed. Outwardly, he may seem once more to be in contact with reality, but many of his ideas—in particular his assessment of his friends and relatives' attitudes toward him—are unrealistic, and it is consequently necessary for the psychiatrist to continue seeing him frequently for outpatient psychiatric interviews. In addition, in so far as is possible, the psychiatrist should correct the features of the patient's environment which might prevent or delay a complete recovery. Otherwise, the individual will need to return to the hospital again and again for somatic treatment.

Actually, electroshock treatments have enabled psychiatrists to relieve acute psychoses and depressions in relatively short periods of time. Very often patients can return to work after intervals ranging from six weeks to three months, whereas 25 years ago they would have remained in state hospitals for a number of years. But such therapy does not enable a patient to remain well if he is again exposed, day after day, to the basic causes of his illness. My training and observation indicate to me that mentally-ill people usually have crippling personality defects that only psychotherapy can remedy. Many are passive and dependent. They cannot use their natural aggression. Many have tremendous fears and guilt feelings. They suffer from sadistic, punitive consciences. Their relationships with others are distant and unenjoyable because of their fear of their own feelings and their consciousness of being "different." Because they expect other people to take advantage of them or to harm them, they shun companionship, and as a result their emotional needs for love, understanding, approval, etc. remain unsatisfied. Add to this the shame which patients feel over having had a mental disease—an unhealthy attitude which is likely to remain with them for life—and these individuals have a burden which they cannot carry very long, unaided,

For follow-up outpatient therapy, my associates and I select those patients who are young (17-40 years), who seem capable of gaining some insight into their condition, whose personalities are not too rigid and whose relatives are cooperative. The treatment, administered in our offices or at the local mental health center, is long and arduous. They are seen at least once a week for a 45-minute interview, and those who are anxious and upset, we try to see twice a week. Therapy lasts one or two years, and in particular cases even longer. Some of them, of course, are unable to respond to psychotherapy, and they are usually discontinued after a three to six months trial. Our health center has been of real help to us with patients who have been unable to afford long-term psychiatric care.

Because the patient and his relatives have no real understanding of the ways in which environmental factors bring about recurrences of mental illness, we have found it helpful to have a psychiatric social worker visit the home and make explanations designed to show these people how they can be truly helpful. Frequently, of course, the patient's relatives have emotional difficulties of their own which—though they may be unaware of them—make the patient's recovery especially difficult.

We usually make no attempt to treat those relatives, but through authoritative suggestions we try to modify their conduct in some degree. Many such people are amenable to these ideas because they, no less than the patient himself, are anxious to prevent catastrophe from striking their family a second time. If necessary, we also try to get the patient's relatives to change their attitude toward him. We explain to them that the patient is not irreparably peculiar, but merely has a disease which requires definite treatment. When the emotional atmosphere is right, we try to point out that mental illness isn't just the patient's problem, but is one to which all family members have contributed and which all must share in correcting.

These activities have been helpful to us. At our local hospital's psychiatric unit, the readmission rate has been less than 15 per cent for six years, whereas most state hospitals have a return rate of at least 33⅓ per cent, and sometimes more. Actually, these figures don't provide a true index of the amount of suffering that is alleviated through attempts such as ours at rehabilitative psychotherapy and environment-correction. Perhaps it is most significant that in those six years none of the patients with whom we have worked in our outpatient program have had to return to


"ankle-itis"
there's pain and
inflammation here...
it could be mild
or severe, acute or
chronic, primary or
secondary fibrositis — or even
early rheumatoid arthritis

more potent and comprehensive treatment than salicylate alone

assured anti-inflammatory effect of low-dosage corticosteroid[1] . . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function . . . wide range of application including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more conservative and manageable than full-dosage corticosteroid therapy—

much less likelihood of treatment-interrupting side effects[1-6] . . . reduces possibility of residual injury . . . simple, flexible dosage schedule

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acute conditions: Two or three tablets four times daily. After desired response is obtained, gradually reduce daily dosage and then discontinue.

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precautions: Because SIGMAGEN contains prednisone, the same precautions and contraindications observed with this steroid apply also to the use of SIGMAGEN.



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Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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the hospital for a resumption of electroshock treatments.

We intend to expand that phase of our work in the near future—particularly as regards environmental manipulation and work with patients' relatives. It is my belief that the time is coming when most patients admitted to psychiatric hospitals will need no more than a month's hospitalization. A following period of outpatient therapy will then alleviate many of the personality defects and environmental stresses which have been responsibile for both original attacks and recurrences of mental illness. We cannot treat mental illness altogether successfully until we root out and destroy those causes.

AMA QUESTIONS THE NATION'S LAWYERS

This fall, the Law Department of the AMA is surveying the legal profession of the United States on subjects of mutual interest to physicians and attorneys. Approximately 10,000 lawyers will be asked to respond to questions on interprofessional relations, medical professional liability and expert medical testimony.

The study is necessitated by the fact that as high as 80 per cent of all cases tried today require medical testimony, and the fact that seven out of 10 personal injury cases are decided on medical rather than legal considerations. It is incumbent upon the medical profession to be aware of the problems of attorneys and of the role of medicine in the juridicial system.

SURGEONS' CLINICAL CONGRESS

The 44th annual Clinical Congress of the American College of Surgeons will be held at the Conrad Hilton Hotel, in Chicago, on October 6-10, 1958. It is expected that more than 10,000 surgeons, physicians, students and related medical personnel will attend.

Major addresses will be given by Dr. Newell W. Philpott, of Montreal, incoming president of the College; Dr. George J. Curry, of Flint, an authority on care of the injured; and Dr. Gunnar Thorsen, of Stockholm, a distinguished surgeon and a writer in the field of body fluids. Approximately 200 reports will be presented in the sessions known as the Forum on Fundamental Surgical Problems.

The postgraduate courses will cover developments in pre- and postoperative care, heart surgery, injuries, hip disabilities, gynecology and obstetrics, pediatric surgery, pulmonary disease, surgery of the liver, biliary tract and pancreas, and surgery of the gastrointestinal tract.



These are two of the quilts which Dr. Jeannette Dean-Throckmorton, director of the State Medical Library, makes as a hobby. Both are now on exhibit at the Chicago Art Institute, and both have won prizes in annual AMA physicians' art competitions.

For the quilt at the left, called "feather-edged star," Dr. Throckmorton adapted a standard design and made a pattern from her adaptation. The quilt at the right, which she calls "goldfinch and flowers," is altogether her own as regards both design and execution. The goldfinch (wild canary) is the state bird of Iowa. As portrayed on the quilt, the bird's black and yellow plumage contrasts brilliantly with the blue of the flowers.

THE DOCTOR'S BUSINESS



Partnership Life Insurance

HOWARD D. BAKER

WATERLOO

Partners in manufacturing or retailing enterprises frequently think it prudent to buy life insurance on one another, since liquidating the financial interest of any one of them would dangerously deplete the working capital of their firm or would seriously cripple the partners if they undertook to pay the amount from their assets as individuals. Members of medical groups frequently ask themselves whether or not they should adopt such an arrangement.

This protection can be secured through a system of cross-insurance. If there are three partners, "A" and "B" buy a policy on the life of "C"; "A" and "C" buy one on "B"; and "B" and "C" buy one on "A." The ages and insurabilities of the three men usually vary, but the insurance premiums are ordinarily totaled and the partners are billed identical sums each year.

Since the policy on the life of the partner who dies is the property of the survivors, it is not a part of his estate, and the proceeds will come to them tax-free.

ADVANTAGES AND DISADVANTAGES

Insurance of this sort provides immediately-available cash for the liquidation of the decedent's capital interest, and thus there is certain to be no occasion for his widow's having to wait for her money. Furthermore, this type of precaution avoids financial embarrassment for a partner who hasn't yet accumulated substantial independent assets.

But doctors don't usually have all their funds tied up in their partnerships, and for the majority who are financially independent, the paying of premiums on partnership insurance would be an unnecessary expense—one which, incidentally, is not deductible from taxable income. The advanced age or marginal insurability of the senior member of the group, in many instances, makes the coverage very expensive. And the partner who lacks independent assets perhaps ought rather to buy insurance on his own life for the protection of his family.

Thus, partner physicians should investigate carefully before entering into such an arrangement. They should find out whether any member of their group really needs such protection, they should find out what it will cost, and finally they should study alternative arrangements.

ANOTHER PLAN

Let us suppose that three partner physicians own an office building valued at $54,000 and have accounts receivable worth $39,000. If one of them were to die, the survivors would be called upon to pay $31,000 each to the decedent's estate.

Dr. A, an independently well-to-do man 57 years of age, has a physical impairment because of which insurance companies will insure him only at 120 per cent of the standard premium. Dr. B, who is 41 years of age, could easily borrow funds to purchase his share of a partner's interest. Dr. C is 29 years of age and has no resources whatsoever. His maximum credit would be about $5,000.

This hypothetical group—or at least the junior member of it—faces a real problem, but partnership insurance would provide only a very expensive answer to it. Here is another scheme which they can set up.

Accounts receivable can be made self-liquidating; then, in case one of the men dies, those assets will be frozen and will become payable to the estate and the surviving partners only as they are collected. In addition, by making the requisite agreement now, the partners can arrange that survivors may pay a decedent's estate either in full or in monthly installments of no less than $300 each plus interest at 5 per cent on the unpaid balance. Presumably their office building could be mortgaged in return for a loan of between $25,000 and $30,000, and the liquidation could be completed painlessly within five years.

Generally, then, it can be said that partnership insurance is unnecessary for the members of medical groups. But since there may be exceptions, each set of medical partners together with their attorneys and financial advisers should study the individual problem carefully before arriving at a decision.

THE CONTRIBUTION OF THE AAGP

In the beginning, formal medical education simply did not exist. Anyone interested in medicine practiced medicine, and there were no rules or regulations other than the Hippocratic Oath. Except for occasional and almost entirely accidental discoveries, practitioners used the methods handed down to them by the men under whom they had served apprenticeships. Gradually, medical schools were formed, and teaching programs evolved. Then, late in the nineteenth century, progress became rapid. From laboratories and research centers came a flood of new discoveries, and each bit of new information unlocked other avenues of study. The scientific era of medical study had arrived, and the empirical approach was abandoned.

Suddenly it became impossible for one man to know all there was to know about medicine. During the prescribed number of years of formal training, he could learn only so much. Thus, medical care reached the ear of specialization. The development was a fortunate one, since physicians who knew all about certain diseases or all about a particular part of the body could give valuable assistance to the doctors who continued to treat the patient as a sick *person*.

Specialization, however, became over-popular. The specialists set up examining boards and certified the competency of the men who passed tests and satisfied other requirements. The resultant aura that surrounded specialization led many medical students to think they couldn't succeed, either professionally or financially, unless they entered one or another of the limited types of practice. As late as 1947, at a meeting of the New York Academy of Medicine, the general practitioner was described as a doctor who couldn't get or couldn't afford specialty training, and for years most graduates of medical schools planned to be specialists. Surgeons were available, as were obstetricians, pediatricians, gynecologists, ophthalmologists, cardiologists and dermatologists, but patients who were unwilling to attempt diagnosing their own ailments weren't sure which to choose. They needed—as they will always need—competent family doctors.

It was, in part, to restore balance to this situation that the American Academy of General Practice was organized in June, 1947. A mere handful of family doctors—no more than 150—met in Atlantic City. Theirs was a spontaneous movement. In the constitution which they drew up, five positive objectives were set forth:

1. To promote and maintain the highest standards of general practice
2. To encourage medical students to become qualified family doctors
3. To preserve the general practitioner's right to practice medicine to the full extent of his abilities
4. To provide postgraduate training opportunities for the family doctor
5. To advance the science of medicine and the nation's health and welfare.

The founders of the Academy were determined that their organization should be more than just another medical association. Its standards should be high, and its program should be objective. Family doctors all over the country were desirous of such an undertaking, and a chain reaction started. State and county chapters were started in all parts of the country, and today the Academy has over 24,000 members, making it the nation's second largest medical group.

The Academy established rigid qualifications for membership. It recognized that no doctor ever completes his medical education. If he is to keep up with progress, he must keep studying. Consequently, the Academy became the first medical association to require continuing postgraduate education. During every three years, each member must complete 150 hours of accredited study. If he does not, he loses his membership.

Actually, many Academy members could qualify for specialist ratings, but they prefer to be general practitioners. They recognize the greater challenge and the greater opportunities for service in treating *people,* not merely diseases. They cherish the warm human relationships that can develop only between a family doctor and members of the families under his care. They have learned the importance of treating the patient as a complete individual, influenced by family and community backgrounds, and subject to a multiplicity of pathologic and traumatic factors. They constantly seek training in the evaluation of back-

ground influences, as well as in the treatment of specific disease entities, and the purpose of the Academy's postgraduate requirements is to bolster members' determination in their search for up-to-date information and new skills in that field. In short, its aim is to help its members make themselves ever better family doctors.

The Academy's Scientific Assembly in Dallas in March, 1958, attracted over 3,600 doctors from all parts of the country. The Academy makes extensive efforts to persuade medical students to enter general practice. It carries on a continuing and positive public-relations program.

The results of its efforts are becoming increasingly apparent. Whereas in 1940 only one out of 10 medical students planned to enter general practice, six out of 10 intend to do so today. Furthermore, a steadily increasing share of people throughout the country are discovering the importance of having a family doctor.

The Academy's program has led many medical schools and hospitals to reevaluate their teaching principles. Now, many of them have established special courses or programs to promote the general practice of medicine. Many hospitals, indeed, have organized general practice departments and have established general practice residencies.

In summation, it can be said that the American Academy of General Practice has made real and important contributions to the nation's health and welfare since its establishment in 1947. It will continue its positive program, and will search out new opportunities to be of service.

PSYCHIATRIC TERMINOLOGY FOR GP'S

A 40-page illustrated booklet entitled "A Physician's Guide to Psychiatric Tests and Terminology" has been made available by the Schering Corporation as a part of its continuing program of supplying medical information to the practicing physician.

The pamphlet contains samples of the tests as well as 200 of the terms often employed in psychiatric diagnosis and therapy. The tests include the famous Rorschach ink-blot, the figure-drawing test, the word-association test and the picture frustration test.

Copies can be secured through detail men or from the Schering Corporation, Bloomfield, New Jersey.



Dr. J. C. Donahue, of Centerville, is shown in his electric "buggy," which about 314 of his former patients bought for him so that he might continue to play golf. He retired from medical practice recently, after suffering a heart attack. The gift included a garage to house the vehicle, insurance for both "buggy" and garage, and prepayment for electricity to recharge the batteries.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

MORBIDITY REPORT FOR MONTH OF AUGUST

Disease	1958 Aug.	1958 July	1957 Aug.	Most Cases Reported From These Counties
Diphtheria	0	2	1	
Scarlet fever	91	76	45	Johnson
Typhoid fever	2	3	6	Kossuth, Polk
Smallpox	0	0	0	
Measles	210	587	135	Scott
Whooping cough	12	9	14	Des Moines
Brucellosis	16	12	7	Benton, Buchanan
Chickenpox	31	36	27	Dubuque, Linn, Scott
Meningococcus meningitis	0	0	1	
Mumps	165	190	85	Buena Vista, Clay, Scott
Poliomyelitis	20	0	24	Polk, Story, Woodbury
Infectious hepatitis	7	5	20	Polk
Rabies in animals	19	14	20	Linn, Pocahontas
Malaria	0	0	0	
Psittacosis	1	0	1	Delaware
Q fever	0	0	0	
Tuberculosis	56	49	46	For the state
Syphilis	105	97	127	For the state
Gonorrhea	105	63	51	For the state
Histoplasmosis	1	2	0	Page
Food intoxication	0	0	0	
Meningitis (type unspec.)	0	0	3	
Diphtheria carrier	0	7	0	
Aseptic meningitis	16	0	16	Polk
Salmonellosis	1	1	1	Polk
Tetanus	0	0	0	
Chancroid	0	0	0	
Encephalitis (type unspec.)	0	0	0	
H. influenzal meningitis	2	0	1	Polk, Story
Amebiasis	6	2	0	Boone
Shigellosis	3	0	1	Polk
Influenza	0	0	36	

AGAIN, THE POSTAGE RATES

The Post Office Department has announced that the old postage rates will apply on the shipment of odd parcels, such as specimen containers addressed to the State Hygienic Laboratories, until May 1, 1959. Thereafter, the new rates published on page 528 of last month's JOURNAL will be assessed.

Furthermore, as of October 1, 1958, specimen containers bearing inadequate postage or no postage at all will be returned to the physician, rather than delivered to the Laboratories, and he will be charged a five cent penalty.

	Current Postage Rates	Rates as of May 1, 1959
Syphilis serology containers	4½c	6c
Agglutination test containers	4½c	6c
Diphtheria containers	7½c	7½c
Tuberculosis containers	7½c	9c
Stool (typhoid) containers	7½c	9c
Stool (Parasites and ova) containers	7½c	9c
Envelope mailer (slide)	3c	3c

HOSPITAL VISITORS

The State Department of Health urgently recommends that all Iowa hospitals adopt and enforce the following restrictions:

1. That visiting on obstetric wards be permitted only to the patients' husbands, and if in any instance the husband is unable to visit, some other adult member of the patient's family be assigned the privilege, but that it be limited to one and the same person.

2. That visitors elsewhere in the hospital be limited to no more than two at any one time, that they be permitted to stay only for short periods, that chairs be provided them so as to make it unnecessary for them to sit on beds, radiators or window sills, and that they be forbidden to place their outer clothing on beds or bedside tables.

3. That visitors under 14 years of age be forbidden access to any part of the hospital at all times.

4. That arrangements be worked out so as to prevent visitors from traveling from ward to ward and visiting other areas of the hospital.

These recommendations are intended primarily to guard the patients' welfare. The average hospitalization today is so short that patients seldom remain to the point in their convalescence at which visits are enjoyable or conducive to their well being.

Because of the increasing threat of hospital infections, these curtailments of visiting privileges are essential to the prevention of any outbreak,

large or small. Children pose a particularly serious threat because they may at any time be developing an infectious childhood disease and because their activities cannot readily be controlled.

STATE LABORATORY OFFERS STAPHYLOCOCCUS PHAGE TYPING

To help control resistant strains of Staphylococci, particularly in hospitals, the State Hygienic Laboratories of the Iowa State Department of Health have arranged to do Staphylococcus phage typing.

Cultures will be accepted at the Laboratories subject to the following restrictions and requirements: (1) No isolated culture will be accepted. The cultures must be from associated cases which have created a local problem. (2) The condition must have been reported to the State Department of Health, an epidemiologic investigation must have been made by representatives of that Department, and the State Department of Health must have requested the Laboratories to type the specimens. (3) As regards the specimens submitted for typing, (a) the culture must be pure; (b) the culture must be coagulase positive; and (c) the Staphylococcus organism must have been tested for antibiotic sensitivity through the use of a medium concentration of the broad-spectrum antibiotics. Diagnostic plasma for the coagulase test can be obtained from laboratory supply houses.

ECONOMIES OF A MODERN SYPHILIS CONTROL PROGRAM

The modern treatment of syphilis, coupled with the equally modern program of source- and contact-tracing with referral of newly discovered cases to physicians for examination and treatment, is saving money for our mental hospitals. The statistics in the accompanying table were compiled by the Legislative Research Bureau of the State of Iowa, the Board of Control of State Institutions, the Department of Mental Health and the Division of Vital Statistics of the State Department of Health.

The table shows that in the 11 years, 1946-1957 inclusive, the program has saved our mental institutions from having to care for 359 additional patients. Since the estimated cost of such hospitalization is $1,610 per patient per year, and the average stay is 10 years, the total savings can be said to have been $5,780,900.

Total admissions to Iowa mental institutions for all causes from 1941 to 1957, inclusive—34,057 patients.

Admissions due to syphilis, 1945-1957, inclusive —502 patients (1.81 per cent).

ADMISSIONS TO IOWA MENTAL INSTITUTIONS BECAUSE OF UNTREATED SYPHILIS 1941-1957

Year	Population	*Actual Admissions to Mental Institutions With Psychosis Due to Syphilis*		*No. of Admissions Which Would Have Occurred Had the Rate of 2.52/100,000 Population Continued*		*Reported Deaths Due to Syphilis*	
		NO.	RATE/100,000 POPULATION	NO.	ADMISSIONS SAVED IN YEARS INDICATED	NO.	RATE/100,000 POPULATION
1941	2,548,619					204	8.0
1942	2,556,899					171	6.7
1943	2,563,180					163	6.4
1944	2,573,460					151	5.9
1945	2,581,741	65	2.52			133	5.2
1946	2,590,021	65	2.51	65	0	131	5.1
1947	2,598,302	57	2.19	65	8	151	5.8
1948	2,606,582	40	1.53	66	26	118	4.5
1949	2,614,863	47	1.79	66	19	114	4.4
1950	2,621,073	34	1.29	66	32	108	4.1
1951	2,631,424	25	0.95	66	41	88	3.3
1952	2,617,215	31	1.18	66	35	76	2.9
1953	2,631,279	41	1.56	66	25	81	3.1
1954	2,647,790	24	0.91	67	43	66	2.5
1955	2,665,276	28	1.05	67	39	57	2.1
1956	2,690,375	20	0.74	68	48	38	1.4
1957	2,707,041	25	0.92	68	43	37	1.4
Total		502			359		

INFLUENZA VACCINATION

On August 15, 1958, the U. S. Public Health Service issued a release regarding the problem of influenza vaccination for the coming fall and winter. It especially recommended influenza vaccination for small professional or occupational groups especially desirous of preventing absenteeism, and for individuals to whom the disease is a relatively serious risk. U.S.P.H.S. stressed the advisability of letting practicing physicians judge whether or not to vaccinate persons against influenza this fall and winter.

The groups to be given special consideration this fall are the same ones that were given priority last year: (1) hospital staffs whose services are necessary to the care of the sick; (2) persons living in crowded quarters, such as institutions and service establishments where influenza could spread rapidly; (3) persons engaged in essential occupations, where a sizable absenteeism would menace public health generally; and (4) persons or groups with special health risks, such as the aged, the chronically ill, and pregnant women.

Though there have been some scattered cases of influenza throughout the United States during the past summer, there is no present indication that the numbers are increasing. Neither the State Department of Health nor the U.S.P.H.S. can now predict whether or not there will be an epidemic this fall and winter. It is certain, however, that if a new variety of influenza virus appears in any area during one year, it is likely to recur and indeed to be the predominant organism in any outbreaks of the disease there during the next two or three years.

There will be plenty of influenza vaccine this year. Since the chances are good that in case of an epidemic many of the cases will have been caused by last year's new Asian strain of virus, the vaccine to be used is the polyvalent type containing the Asian strain component.

Those seeking protection against influenza this fall or winter should not rely upon the inoculations they received last year or upon having had attacks of influenza last year. At best, the vaccine affords protection for no more than three or four months. Some persons who had influenza last year may have acquired an immunity, but others will not have done so.

The vaccine available now should give greater protection than did the vaccine given in September or October last year, for the vaccine now on the market is just about twice as potent as last year's, and it has been found that increasing the strength of the vaccine adds to its efficacy.

Persons wishing protection against the possibility of an outbreak in mid-October should be immunized at the very first of the month, for full protection takes about two weeks to develop. The dosage is 1 cc. Some physicians may elect to give it in one injection, and others may choose to give it in two 0.5 cc. injections spaced a week or two apart. Persons immunized this fall should each have a booster injection of 0.5 cc. in January or February to retain protection through the winter and early spring months.

DES MOINES POLIO VACCINATION STUDY

Recently, Dr. James F. Speers, director of the Des Moines-Polk County Health Department, reported on a study of polio immunization in Des Moines and its suburban areas. It included 898 people representing 380 families.

Generalizing on the basis of the sample, the report indicated immunizations by age groups as follows:

Ages in Years	*Per Cent Having Received at Least One Shot*
0-1	60
5-9	85-90
10-14	85-90
20-29	65
30-39	55
40-49	50
50-59	20
60 and over	5

The study indicated that an especially large number of females between 20 and 29 years of age had received at least one shot, probably in the course of routine prenatal care. But large numbers of these women had stopped short of receiving the requisite three shots, probably because after the birth of their children they no longer were under pressure to complete the series.

It also indicated that larger numbers of adult women than of men are protected, probably because mothers were talked into getting the vaccine when they brought their children for inoculation. In the 20-29 age group, 60 per cent of adults with children have been immunized, but only 35 per cent of the adults who have no children.

Here are some of Dr. Speers' conclusions: (1) Future programs should be directed at persons over 20, particularly males and women who neglected to complete their series of shots. (2) The middle-income group has been reached less satisfactorily than have either the high-income or low-income groups. Such people go to the doctor only if they are sick.

IMMUNIZATION FOR FOREIGN TRAVEL

In mid-September, a new edition of the booklet "Immunization for International Travel" was issued by U.S.P.H.S. It gives current details on immunization requirements for persons reentering the United States, and also lists requirements and recommendations for immunization in 200 other countries. The booklet is for sale by the Superintendent of Public Documents, Government Printing Office, Washington, D. C., and the price is 30c.

Woman's Auxiliary News

OUR PRESIDENT SAYS—

October is one of my favorite months of the year. I love the riot of beautiful fall colors that we see all around us, and the hazy, warm days and cool nights of Indian summer.

October is one of the busiest months of the year. Vacations are over and family routine has been reestablished. Our sons and daughters, from kindergarten to college, have returned to the Battle of the Books, and members of the Auxiliary are all set to do great deeds.

Many of you are off to a good start on your year's activities, and have already held your first Auxiliary meeting. I extend my congratulations to you "early beginners," and wish you a very successful year! Others of you, no doubt, have yet to start. There are so many opportunities for us to serve the medical profession and our own communities that it is sometimes difficult to choose our line of endeavor. If your county Auxiliary is faced with such a problem, I suggest that you consult your county medical society. It will guide your thinking into the proper channels and help you make a wise choice.

On October 6, 7 and 8, your president-elect Mrs. Larsen, your administrative secretary Mrs. Lammey, and I are to attend the Presidents' Conference in Chicago. That meeting is sponsored by the National Auxiliary, and is to consist of workshops, panel discussions and small conferences for the benefit of state presidents. Watch for our report of that meeting.

Let me remind you of some of the continuing projects of the Auxiliary in which your chapter should make sure to participate this year. Remember to give top priority to the essay contest for high school students. Look for ways and means of securing larger contributions to the American Medical Education Fund. Work toward a wider distribution of "Milestones to Marriage." These are only three of our many activities. From month to month, detailed accounts of these projects will appear in the WOMAN'S AUXILIARY NEWS.

Whatever jobs you undertake, give them your best efforts. My earnest wish for doctors' wives is that their interest in the Auxiliary will continue to grow, and that the hours they spend together working toward a common goal will be friendly, pleasant hours. May we renew old friendships, make many new friendships and rededicate our Auxiliary to its high objectives as we work together this year!

MRS. HERBERT C. MERILLAT
President

AMERICAN MEDICAL EDUCATION FUND

This year, Iowa Auxiliaries intend to collect more than $1,000 for the American Medical Education Fund, or an average of at least $1 per member. Last year, we raised about 50 per cent of that amount. Give double this year, if you failed to give to AMEF last year!

Contributions to AMEF are deductible from taxable income. Thus, in effect, we can make Uncle Sam the real donor of somewhere between a third and a half of the sums we contribute. Bear this fact in mind as you decide how much you can give!

The National Auxiliary hopes to receive a total of $160,000 from all of the chapters in the United States—a considerable increase over last year's $126,366.68. It will issue certificates of achievement to county Auxiliaries, scoring on a percentage basis, and the state Auxiliaries will receive recognition for total contributions by members at large. Let's make Iowa stand out as a contributor to AMEF this year!

By helping our medical schools we accomplish two purposes: (1) We help them to pay their faculty members adequately and to improve their instructional facilities. (2) We postpone the day when the federal government may find an excuse, through more or less complete subsidization, to take over control of those institutions.

Remember that AMEF gifts are fine ways of showing your respect and affection for your friends, and of showing your devotion to the principles to which you and they are dedicated. "Memorial" and "Appreciation" stationery is available to you for the asking. In addition, Iowa Woman's Auxiliary note paper, especially designed for us, is for sale at the central office in two striking designs. The scenes on both are typically Iowa, and the newer one is the work of one of our own members, a woman who is fast becoming well known in the art world.

SAFETY FIRST

"A child may dare, so drive with care!"

THE 1959 ESSAY CONTEST

All Auxiliary members should continue sponsoring the essay contest for high school students which is conducted, at the national level, by the American Association of Physicians and Surgeons. The State Auxiliary sponsored it for the first time last year, at the suggestion of the Iowa State Medical Society, and the entries were highly gratifying, both in numbers and in quality. Of the three state-contest winners, one placed ninth in the national competition and another received honorable mention.

The contest is intended to give youngsters a compelling reason for interesting themselves in the capitalistic economy which has made the American standard of living better than that of any other country on earth. Whether they choose to write on "The Advantages of Private Medical Care" or on "The Advantages of the American Free Enterprise System," they are sure to acquire an appreciation for freedoms which they have hitherto taken for granted, and to gain an acquaintance with the crippling effects of excessive government controls.

Library packets for use by the young people who are to participate in the contest are available now. Write for them either to Dr. Herbert L. Wormhoudt, 401 Hofmann Building, Ottumwa, or to Mrs. Hazel Lammey, Woman's Auxiliary to the Iowa State Medical Society, 529-36th Street, Des Moines 12. In your letter, be sure to mention how many of them you will need.

AMEF Note Paper and Envelopes

$1.00 for a pack of 10 each

Order from Mrs. Robert Updegraff
630 Foster Drive
Des Moines 12, Iowa

Proceeds will be donated to the American Medical Education Fund

COUNTY AUXILIARIES

POLK

The Board of the Polk County Medical Auxiliary met at the home of the president, Mrs. John Bakody, on September 16, for luncheon. Plans were formulated for the coming year.

The Polk County Medical Society and its Auxiliary had their annual dinner dance on September 19 at the Des Moines Golf and Country Club. The theme of the party was "Old New Orleans," and everyone had a delightful time.

MILESTONES TO MARRIAGE

Have you talked with your school superintendent or high school principal regarding the use of the series of letters entitled "Milestones to Marriage?"

During the 1957-1958 school year, county Auxiliaries in various parts of the state arranged for their use in high school classes, and both teachers and students expressed great enthusiasm for them.

The ISMS Mental Health Committee urges the expansion of this project on the grounds that it will promote mental well-being both directly and indirectly. By helping to prevent ill-considered and consequently unhappy marriages, it will guard the happiness and emotional stability of the young people of today. Secondarily, it will help to insure the lives of the next-following generation through —let us hope—a reduction in the number of broken homes.

If you have not already examined "Milestones to Marriage," send for a sample set at once. The letters are available either individually or in quantity from Mrs. Hazel Lammey, 529-36th Street, Des Moines 12, Iowa, at a very nominal price.

BOARD OF DIRECTORS MEETING

A meeting of the Board of the Woman's Auxiliary to the Iowa State Medical Society will be held at the ISMS office building, 529-36th Street, Des Moines, on October 14. The meeting is scheduled to start at 9:30 a.m., and to close no later than 3:00 p.m., so as to give the members some time for shopping if they wish it, and still permit their starting for home while there is still daylight.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 116 Lincoln Place Drive, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 307 49th St., Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Blue Shield States Its Case

TOM D. THROCKMORTON, M.D.

DES MOINES

"All life is an experiment. Every year, if not every day, we have to wager our salvation upon some prophesy based upon imperfect knowledge."
—Justice Holmes

As knowledge has expanded with almost explosive force and has fragmented itself into a multitude of categories, each of us has picked up and clutched to his bosom certain bits of fact or fancy and has woven them into the framework of his personal philosophy just as a crow collects bits of paper or strands of gaudy beads and weaves them into its nest. These bits of knowledge—imperfect and incomplete though they may be—all too often are granted a prominence which they do not deserve, but when we have made them our own and have molded them into a shape that is our individual creation, we confer upon them a very special protection. It is thus that each of us has become "opinionated."

And so it goes! We winnow our supply of knowledge—some bright as tinsel, some drab as a courthouse statue. We strengthen our opinions with whatever suits us, and discard the rest as lacking in nourishment or substance. And yet such opinions can only be jackstraw creations when compared with medical diagnoses.

As physicians, we exist in a restricted compartment of knowledge. Within its bounds we are authorities, but only by virtue of our adherence to a rigid discipline based on solid facts. These facts were not derived by a capricious screening of hopes and fears, passions and prejudices. Our medical discipline demands proof; it demands all of the facts; and it demands that those facts be judged with equanimity, and that the interpretations placed upon them by our colleagues should be considered with courtesy and dignity.

EX OFFICIO BLUE SHIELD TRUSTEES

The affairs of Iowa Medical Service—our Blue Shield Plan—lie to some extent outside the traditional boundaries of medicine, but is it too much to ask that we accord them the same attentiveness, depth of understanding and scientific attitude that we bring to our problems in clinical medicine?

I confess that the foreign policy of the United States is a wonderful and mysterious thing to me, but I was amazed recently to hear a passionate utterance on our dealings with the rulers of the Middle East from one of my acquaintances who couldn't identify on a map the countries that he was discussing. No doubt if he informed himself on the geography of that region, and upon its remote and recent history, and if he were to receive daily briefings from the Central Intelligence Agency and the State Department, his opinions would be valuable ones. But more importantly, his new perspective would make him tolerant, rather than impatient or derisive, about the partial successes our government achieves in that region.

By the same token, if each and every physican in Iowa had the knowledge and the responsibility required of a Blue Shield board member, an atmosphere of understanding and cooperation would prevail among the members of Iowa Medical Service. In an effort to make each Iowa physician a Blue Shield trustee *ex officio*, the pages of the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY will be used to bring each physician up to date and to keep him informed of the trends, aims, problems and responsibilities of Blue Shield.

DUTIES OF EX OFFICIO GOVERNORS

During the next few months, a series of articles discussing health insurance problems will appear on these pages. They are intended to provide a broad, factual base on which a really informed opinion may be built. Participation in Blue Shield requires certain responsibilities of its members. (1) They must keep informed. (2) They must actively search out informed and dedicated persons to direct Blue Shield affairs. (3) They must learn not to use Blue Shield as a buffer between disagreeing segments of the medical profession. (4) They must come to realize that Blue Shield is regulated by insurance laws and principles, and that it is not a fraternal organization in which decisions can be made in response to a whim, a fancy or a normal desire to please a colleague. (5) They must rededicate themselves to the service principle upon which Blue Shield was founded. (6) They must *believe* in Blue Shield and make the weight of their ideals and their morality felt in determining its aims. Each of us must open his mind and heart to the problems of prepayment medical care through the service principle!

Now, if ever, is the time for artful leadership in the conduct of our affairs. Unless each of us informs himself about Blue Shield affairs, it will soon be a matter of the blind leading the blind. We must come to grips with reality—i.e., we must fit the profession of medicine into the credit-budget payment scheme that characterizes our economic system today.

The leadership of medicine must necessarily break new paths into unfamiliar territory. The man who directs us along the old familiar ways is not a leader, he is a traffic cop! For too long we have been shuffling along the old well-beaten paths, stubbornly believing what we told ourselves, and dreaming of general ease in Zion. And by doing so, we have committed that most vital of errors—we have lost touch with reality. In consequence, we are being suddenly exposed to view as unable to provide the service type of insurance which we urged the public to accept and which the public has come to depend upon. It was our idea!

At times like these, the worst thing for us to do is to adopt the traditional attitude of defiance and to tell one another: "Let us stand fast; let us hold to the faith as it was delivered unto the saints." I say that we must move! Whether we should advance or retreat is debatable, but there is no question that we must move.

We must abandon the concept that Blue Shield is something to be kept in the attic and refurbished a bit only when socialist-minded do-gooders put in an appearance. The worth of Blue Shield is intrinsic. Blue Shield must reflect the determination of the doctors of Iowa to continue living up to their responsibilities as citizens, friends and guardians of the public health. It is the only joint effort of Iowa physicians that is obvious to the people, and it thus stands alone in representing our integrity, our understanding and our compassion.

At one time, Blue Shield was effective in meeting the most serious medical needs of the people. It did a job. Now it is not filling the public's requirements. Inflation and the tides of public fancy have nibbled away at our product until it has but a frail semblance of its former youthful vigor.

Blue Shield has problems. Blue Shield has a philosophy. Blue Shield has a job to do. Blue Shield has responsibilities both to physicians and to subscribers. Each of us, as an "*ex officio* trustee," must make it his business to become informed in these areas.

The JOURNAL OF THE IOWA STATE MEDICAL SOCIETY will publish the requisite information in subsequent issues. Each of us must digest the facts that are presented if he is to render opinions—opinions that we might be willing to dignify by calling "diagnoses."

A QUESTION-AND-ANSWER SERVICE

In addition, the JOURNAL will start a forum containing questions and answers on topics related to Iowa Blue Shield. Contributions should be addressed to the Board of Directors of Iowa Blue Shield, Liberty Building, Des Moines 9.

The officers of the organization hope that this new section of the JOURNAL will shortly become a popular means of exchanging information about the plan and constructive suggestions for improving it, but they don't want doctors to think that general inquiries or constructive proposals are the only sorts of mail that they will welcome. Letters dealing with individual situations or containing comments that require private answers will also be given careful attention and prompt replies.

A State Science Fair

A Hawkeye Science Fair, under the joint sponsorship of Drake University, THE DES MOINES REGISTER AND TRIBUNE and the Iowa State Medical Society, has been scheduled to take place at the Veterans Memorial Auditorium, in Des Moines, March 27 and 28, 1959. At it, Iowa high school students will display projects on which they have worked under the supervision and direction of their teachers. Letters describing the Fair have been mailed to the principals of all public and parochial secondary schools in the state by Leland P. Johnson, Ph.D., professor of biology at Drake and chairman of the executive committee for the exhibition.

Participation will be confined to science students from the ninth through the twelfth grade. They will design exhibits and conduct demonstrations illustrating principles of both of applied and theoretical science. The projects will have been developed outside their regular classwork.

Competitions will be conducted in two classifications, and the top award will be trips to the National Science Fair, which will be held in May at Hartford, Connecticut.

"Science fairs held in other cities have proved a strong stimulant to student interest," Professor Johnson declared. "They have also helped to focus the attention of parents and the general public upon science subjects."

Mr. Dean C. Stroud, a teacher at Amos Hiatt Junior High School, in Des Moines, is to be the director of the Fair, and serving with Professor Johnson on the executive committee are Mr. Robert Stuhr, director of public relations at Drake; Dr. Francis C. Coleman, a Des Moines pathologist; Mr. Donald L. Taylor, executive director of the Iowa State Medical Society; and Messrs. J. Robert Hudson and Leonard W. McGuire, promotion manager and assistant promotion manager, respectively, of the REGISTER AND TRIBUNE.

Trends in the Malpractice Field

PAUL AHLERS, Attorney at Law

DES MOINES

THE FIELD OF malpractice encompasses the liability of physicians, dentists, chiropodists, chiropractors, osteopaths, and other groups practicing or purporting to practice the healing arts. Of late, suits against medical practitioners for alleged malpractice have provoked a lively interest.

Some respected authorities have asserted that the numbers of such claims and suits have increased enormously since World War II, but other equally respected authorities declare that they have actually become less numerous. The disagreement arises from a lack of complete and authentic data. But whether or not the number of suits is rising, the seriousness of the problem has been spotlighted by a recent rash of high verdicts that have been returned in California courts against members of the medical profession, including one judgment in the sum of $250,000.*

Because physicians constantly bear the responsibility of human life or death, recovery or continuing disability, and because they serve all comers—young and old, competent and incompetent—they run a hazardous course throughout their professional careers. But it is a common, fundamental error to regard this danger as peculiar to the medical profession. Actually, it is not. The increase in the volume of claims and suits, and of large verdicts, confronts society as a whole. Every shopkeeper, every motorist, every property owner, every professional man—in short, every individual moving in society runs the hazard of claims, suits and large verdicts. Everyone, I repeat, runs the constant danger of being made the defendant in a personal-injury action which may be entirely unfounded in fact, or the outgrowth of a moment's mere inadvertence or neglect.

Those who argue that the fault lies in greatly increased insurance coverages and in the extension of available liability insurance to cover every walk of life have much to support their position. I am neither an insurance salesman nor an opponent of insurance, and I do not propose to enter into the controversy about the proper limits of coverage. However, it is certainly true that there is a greater temptation to sue when the prospective defendant is known to be protected by a fat liability insurance policy. High limits in such coverage have become essential to the protection of solvent individuals in consequence of the great sums that juries sometimes now award to the plaintiffs in such actions.

Still, there are factors other than financial which the physician must consider. The mere filing of a suit, with its attendant publicity, may result in serious damage to the physician's reputation and practice, even though the claim is fraudulent or groundless and the plaintiff is irresponsible. It is for this reason that his malpractice policy probably provides that the insurer may settle a claim only with his consent. The interests of the physician may require the trial of a groundless suit against him in order that his reputation may be vindicated.

The problem is made additionally serious by the activities of a national association of attorneys who purport to specialize in the prosecution of personal injury suits. This organization holds regular meetings, invites eniment physicians and judges as guest speakers, and attempts to condition them and the public to a more liberal attitude toward personal injury plaintiffs. I am neither endorsing nor condemning that organization, but in any consideration of the economic and social effects of malpractice claims, I am convinced that it must not be overlooked. Through such organizations, the legal profession has acquired more knowledge and skill in the dramatization of the effects of personal injuries and has increased the public's monetary appraisal of such injuries. In the long run, its activities are tending to increase the amounts of money that juries award.

DOCTORS' SUPPORT OF ONE ANOTHER HAS BACKFIRED

It is a recognized law of physics that for every action there is an equivalent reaction, and this principle is sometimes applicable in the fields of economics and psychology. An economic trend is sometimes reversed by the resistance engendered by the force of the original movement. A psychological reaction may be precipitated by an excessive trend in one direction. I believe that such a reaction may be taking place in trials of malpractice suits. A rigid code which prohibits one physician from testifying against another in such an action merely invites an adverse reaction by courts and juries when they realize that expert medical testimony is less readily available to the plaintiff than to the defendant. Appellate courts, indeed, have formally recognized in some instances that the plaintiffs were handicapped by their lack of access to competent and impartial medical opinion. Consequently, the courts seem to be increasingly liberal towards the submission of malpractice cases to juries.

I do not wish to take this discussion into the

* Case reversed and remanded for retrial October 22, 1957. Salgo v. Leland Stanford, Jr., University Board of Trustees, *et al.* 154 A.C.A. 611, 317 p. 2d 170.

technical areas of the law, but it seems to me that physicians need an understanding of the simple legal procedures which are employed in a civil damage suit. It is axiomatic, of course, that the burden of proof is upon the plaintiff. In other words, he must prove the defendant's negligence. When a patient files a petition in court claiming negligent treatment by his physician (or negligent lack of treatment where treatment should have been given), it is necessary that he sustain his charge before a jury is entitled to pass upon the matter. Under the traditional rules, if when the plaintiff rests his case—and he always has the first turn—the evidence presented has been insufficient to permit the jury to find that his charges are true, the defendant should be entitled to a directed verdict. But of late there has been a trend toward the submission of *all* negligence cases to juries, and sometimes the appellate courts have recommended that the court should consider the sufficiency of the evidence *after* the plaintiff has received the verdict and the defendant has moved to have the verdict set aside. There is small comfort for a doctor in having a verdict set aside after newspaper headlines have blazed the news that a jury has declared him responsible for maiming or killing a patient. And if the judgment is allowed to stand, his liability insurance—even though it is sufficient to cover the judgment—won't keep his practice from dwindling.

It is the observation of the legal profession generally that courts today are less inclined than they were years ago to interfere with a jury's determination of a negligence case. You may be shocked by this disclosure, but it is a fact. You may label it a relaxation in judicial responsibility or a tendency by the courts to "pass the buck," but the trend is there. There is the same inclination toward letting juries have the last word in cases involving motor vehicle accidents, slippery floors, falling objects, railroad or bus accidents, products liability, falls on stairways or sidewalks, elevator accidents, asphyxiation cases, electrocutions and other mishaps to which the law of negligence applies.

Thus, the situation of which I have been speaking is not one which is confined to the medical profession alone. It is a general trend that poses increased hazards for every business and every private individual. It may be that the public felt that the former judicial view was too conservative. It may be—as many believe—a byproduct of of inflation and of the social legislation that has been adopted during the past 30 years. I believe that it was in 1934—24 years ago—that the Supreme Court of Iowa last decided that the evidence of a physician's malpractice was insufficient to justify submission of the case to the jury.*

* Thompson v. Anderson, 1934, 217 Iowa 1186.

DOCTORS MUST DEFEND THEMSELVES

There is a legal principle known as the doctrine of *res ipsa loquitur*. Literally translated, that phrase means "the thing speaks for itself." As applied to malpractice suits against physicians, it means that an inference of negligence on the part of the physician can be drawn from the occurrence of the injury alone. Thus, if that principle is held to apply, the plaintiff need not submit specific legal proof of the particular negligence involved, and the jury is entitled to pass upon the question of the defendant's negligence. This doctrine may be applied against a surgeon who injures a portion of the patient's body other than that which was the subject of the operation. For example, the Iowa Supreme Court applied the doctrine where it was charged that the surgeon had ligated an artery in the plaintiff's leg, instead of the vein which was to have been ligated.** The Iowa court also applied it against a hospital when the plaintiff had received an ether burn on her abdomen while being prepped for back surgery.*** Other typical applications of the doctrine would be in cases involving the leaving of sponges or other objects in wounds, diagnostic x-ray burns, etc. The rule is applied more readily in cases where patients sustained injuries while unconscious.

There has been a tendency on the part of the courts to expand the doctrine of *res ipsa loquitur,* thus casting upon the physician the burden of coming forward with his own proof, rather than relying upon the failure of the plaintiff to prove his case.

THE SUPREME COURT DOESN'T PASS UPON THE EVIDENCE

It is a popular misconception that if a jury finds unjustly for the plaintiff, the Supreme Court on appeal will always provide relief. The Supreme Court *does not* weigh the evidence again to determine whether it would have rendered the same decision that the jury handed down. In this type of litigation, the Supreme Court of Iowa merely examines the transcript to determine whether, *provided the jury believed the evidence,* those ladies and gentlemen were justified in reaching the decision that they announced. The Court does not pass upon the truth or falsity of the evidence, and thus you can readily see that it provides no redress to the physician who has been victimized by plausible fabrications.

Let us take a simple hypothetical case. A patient comes to you with the complaint that he has injured his back. He tells you that the only injury he has sustained was produced by a falling object which struck him at what you recognize as the level of the third lumbar vertebra. A bruise has

** McGulpin v. Bessmer, 1941, 241 Iowa 1119, 43 N.W. 2d 121.

*** Frost v. Des Moines Still College of Osteopathy, 1956, (Iowa) 79 N.W. 2d 306.

appeared at that precise spot, and you order x-rays of the general area. The x-rays are negative. You advise conservative treatment, and the patient does not return to see you again.

Some months later, the patient goes to another doctor and complains to him of an injury in the cervical area, claiming that he sustained it in the accident he had described to you. Actually, it is the result of a second accident—one which he wishes to keep secret. The x-rays taken by the second doctor reveal a fracture in the cervical area.

The patient then brings suit against you for failure to diagnose and treat the injury to his cervical area. He testifies falsely that he complained to you of having been struck there, and that he also complained to you of radiating pains in his right arm. The second physician testifies that he has found an injury to a cervical disc. You can deny the statements made by the plaintiff, but the case will go to the jury, and if the jury chooses to believe the plaintiff, you will be stuck.

KEEP CAREFUL, ACCURATE RECORDS

In such a situation, your office records will be of great assistance to you if they recount in detail the history that the patient gave you, and if they were written during or shortly after his visit, but if they reveal little more than the date of his call and the charge you made, you will probably get caught by an undeserving plaintiff attempting to swear through a false case.

You may wonder why there are not more malpractice suits against the members of other professions, including lawyers. One reason is that detailed records such as correspondence, signed statements and court records leave little room for doubt as to what actually transpired in the conduct of the client's affairs.

AVOID HURTING PATIENTS' FEELINGS

Specialization in medicine and a diminution of personal relations between physician and patient have added fertility to the field of malpractice litigation. Patients are people, and as such they are less likely to sue a physician with whom they are intimately and favorably acquainted, regardless of the degree of injury. Wounded feelings of patients create more litigation than do actual invasions of legal rights. An angry patient is a willing litigant. The average individual will suffer injury without complaint if the professional man has maintained friendly relations with him.

In my somewhat limited experience with medical malpractice, I have observed numerous cases which would never have been brought against physicians if the doctors had not hurt their patients' feelings. You doubtless have noted that it is a very rare occasion when a lawyer sues for a fee. Please do not assume from this fact that the lawyer always takes care in advance to make sure that he will be paid. Charging off uncollectible fees is a matter of routine in the average law office. Many times, the sum is substantial. Coercive methods of collecting fees breed retaliatory malpractice litigation.

Pay particular attention to neurotic and hypochondriac patients. They are typical complainers. Watch out for patients with symptoms of paranoia. They frequently sue for the redress of fancied wrongs. And remember the husband or wife of your patient; the spouse may instigate a suit which your patient wouldn't think of starting.

It is difficult to be candid and utterly frank with the patient and at the same time avoid the danger of over-explanation. If you are in doubt about the patient's ability to understand, or about his motives or integrity, don't talk too much. In nearly all cases, civil and criminal, reports of the oral statements or admissions made by the defendant have great weight in determining the verdict. Thus, you must remember that the comments you make about your choice of remedies and about what you have done and propose to do for the patient, or your apology for an unavoidable lack of success, may be misunderstood, misinterpreted or deliberately distorted. Later, if a case is brought against you, it may result in highly damaging testimony.

DON'T IMPLY ANY PROMISES

Never promise a good result or a recovery. You may be surprised to learn that your optimistic bedside assurances can be held to constitute an oral contract, though you gave them for the purpose of improving the mental attitude of your patient and securing his cooperation. In addition, many malpractice insurance policies contain a provision exempting the insurer from any liability that the insured may have assumed through guaranteeing the result of treatment.

In 1955, the highest court of the State of New York held that a good cause of action *based upon contract* had been stated in a complaint which alleged that the defendant physician and surgeon had promised the plaintiff he could be cured in one or two days after the proposed operation and could then resume his occupation. Instead, according to the complaint, the patient was hospitalized for a month for postoperative treatment, and then a second operation was necessitated by the first.* So, in your desire to allay your patient's fears of surgical intervention or other treatment, don't play the part of the kindly optimist by offering bland assurances that your procedure will bring recovery. Promising to cure a patient is as dangerous as asking two willing women to marry you. You are sure to be sued!

When you fill out a death certificate or make entries on hospital records, take just a little extra time to make sure that you are accurate in what you say. Such entries may rise to haunt you, and

* Robins v. Finestone, 1955, 308 N.Y. 543, 127 N.E. 2d 330.

if inaccurate, they will discredit your entire testimony in court. The written record in your own handwriting will ordinarily be accepted as true against any oral testimony that you may give to the contrary. Nowadays, you must never write anything, out of haste or exasperation, which you can't back up, or which might later embarrass you in court.

GET CONSENT FOR UNORTHODOX PROCEDURES

New drugs and treatment methods have brought increasing problems to the field of malpractice. The reactive idiosyncrasies of patients treated with the new drugs are a fruitful source of litigation. It is hard to explain away an allergy which follows the use of a drug that has only recently appeared on the market. Bad results from new technics arouse suspicion. Thus, if you are going to deviate from recognized standards of procedure or of medication, explain the matter fully to your patient and have him sign an acknowledgment that he has given his consent and approval to the course of action that you are about to take. The form of consent should contain a narration of the condition necessitating the deviation from standard procedure and the added risks to the patient.

Whenever you are in doubt about treatment or anticipate trouble with your patient, call in a competent medical consultant.

Because many people think that the doctor of today is overly pecunious and more interested in his fees than in the welfare of his patients, physicians now find themselves in a less desirable position, as defendants in court, than did the family doctors of the past generation. There is an increasing tendency on the part of the public to regard the physician as more of a businessman than a public benefactor. People read a great deal about human ailments and their treatment, and about advances that have taken place in the field of medicine. Written dramatically for the purpose of building circulation, the medical articles in popular magazines and daily newspapers make ordinary men and women fancy themselves experts in diagnosis and treatment, and entitled to pass judgment on their physicians. These are the people who constitute our juries and who pass judgment upon your lawsuits.

The individual who, as a patient last week, felt offended at having to sit for an hour in your waiting room, or thought he detected some lack of consideration on the part of your office girl, nurse, or other assistant, may be drawn on a jury next week or next year to pass upon the merits of a case brought against one of your fellow practitioners. This is another reason why the public relations of the medical profession must be scrupulously and meticulously guarded by each physician for the good of the profession as a whole. One vociferous individual who is prejudiced against doctors can do devastating damage in the secret deliberations of a jury.

CONCLUSION

In my judgment, medicine is the elite of the professions, but the public does not appreciate the years of arduous and expensive training which you undertook voluntarily in order to serve those who chose easier and shorter routes to the earning of a livelihood and of family life. You are entitled to your proper monetary reward. I know that only rarely is one of your patients required to assume responsibilities as heavy as those which you carry—apparently without effort—on your shoulders. I also know that few of you enjoy the comfort of a five-day week or an eight-hour day. Your responsibilities follow you 24 hours a day and seven days a week. But, as I have said, these facts are not appreciated by the general public, and as you attempt to establish and maintain good relations with your patients, you must not assume that they have any real awareness of your sacrifices, either past or present.

There is no panacea which will guarantee protection for the physician against malpractice claims. I can attempt to outline only a few observations I have made and opinions I have formed. Courtesy, patience under exasperating circumstances, good common sense and an awareness of the ever-present danger of litigation, will see the average practitioner well on his way to the avoidance of legal entanglements.

I shall close with a tribute to your profession which I earnestly wish every person would consider before suing his physician. The author was an eighteenth century poet, deformed from birth and dependent throughout his life upon medical aid.

"A wise physician, skilled our ills to heal,
Is more than armies to the public weal."

TWO CORRECTIONS

There were two serious typographical errors in the October issue of the JOURNAL.

On page 544, in the article entitled "A Review of Q Fever, With a Report of a Recent Human Case in Iowa," the first case of the disease in this state should have been reported as having occurred in 1955, rather than in 1935.

On page 554, in the article entitled "The Knowles Vertebral Support Operation," the 17 patients who reported relatively negligible improvement ("less than 50 per cent") as a result of the operation were mistakenly said to have composed 90 per cent of the group questioned. They made up only 10 per cent of the group.

Those mistakes were made by the editor and the printer, not by the authors.

Scientific Articles

Medical Considerations in Cancer Surgery Of the Aged

SAMUEL DVOSKIN, M.D.

NEW YORK CITY

During the past 10 years, I have had an opportunity to observe a series of patients before and following surgery for cancer. These patients were attended by members of the Pack Medical Group and hospitalized at the Doctors Hospital, in New York City. A number of observations were made regarding the evaluation of patients prior to major surgery, the incidence and management of the complications arising after such surgery, and the overall evaluation of the risks involved in such procedures.

Patients 65 years of age and older were chosen for special study for a number of reasons. Degenerative diseases other than cancer pose a much greater hazard for the elderly patient than they do for the youthful one. Heart disease and cerebral hemorrhage outrank cancer as a cause of death in those 65 years of age and older, and hover as a constant threat for those in this age group who are subjected to surgery. The proper medical management of these patients is a factor of considerable consequence in the prevention of an undue mortality rate in these cases.

Despite the fact that these hazards contraindicate elective surgery, patients with resectable cancers or those likely to benefit from palliative surgical procedures must be accepted because untreated cancer bears a uniformly unfavorable prognosis. It should be noted in this connection that the contraindications for elective surgery in the aged which were accepted years ago are growing less and less positive. This change has resulted from improvements in our understanding of the problems involved, from advances in preoperative preparation and anesthesia, and from the greater accuracy of postoperative fluid, electrolyte and metabolic control which is now possible. Although one might expect that the cancer patient would face an especially serious risk, the hazard is not nearly so great as might be anticipated.

This entire problem is of considerable importance, for it is estimated that at present there are about 365,000 new cases of cancer each year among persons over 65, and that nearly 50 per cent of deaths from cancer occur in this age group. One in every four persons reaching this age will eventually develop cancer. There is an increasing incidence of cancer with each year beyond 65, so that a new case of cancer develops in one of every 65 men each year between ages 65 and 69, and in one of every 33 men each year beyond age 85. Among women, the corresponding figures are one in 80 and one in 44. Since surgery is the chief therapy leading to definite cure, it is obvious that a consideration of the medical problems encountered following operations on elderly patients is of great importance.

THE COMPOSITION OF OUR SERIES

This report is based on 134 surgically treated cases of cancer in patients 65 years of age or older, and 25 patients in the same age group who had non-cancerous surgical problems. The types of tumors encountered were those that one might anticipate on the basis of the reported statistical incidence of cancers in patients over age 65. In women, the reproductive organs, breasts and intestines are numerically the most important sites of fatal cancer, and in men, cancer of the respiratory system outranks every other site, accounting for nearly one-fifth of the cancer deaths in the 65 to 74 year age group. In men aged 75

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years or over, the prostate is the leading site of fatal cancer, outranking stomach cancer, which is second.

In this series of 134 cases, gastrointestinal cancers numbered 57. Of them, 19 were cancers of the stomach, 17 were of the rectosigmoid colon, 12 were of other parts of the colon, 6 were of the esophagus and 3 were of the pancreas. Cancers of the genital and sex organs were second most numerous. They totaled 28, and of them 14 were cancers of the breast, 7 of the uterus, 4 of the ovaries, 1 of the vulva and 2 of the prostate. Cancers of the respiratory system ranked third, with the lung accounting for 14, the larynx for 2 and the maxilla for 1. The fourth group, cancers of the skin, included 8 melanomas and 2 squamous cell cancers. It is of interest that although the skin is not a major site of fatal cancer at any age, it is one of the commonest sites for the occurrence of that disease. The largeness of the number of melanomas reported here reflects Dr. Pack's special interest in them. There were 7 cases of soft tissue tumors, including 2 myosarcomas, 2 liposarcomas, 2 fibrosarcomas and 1 mesenchymoma. Miscellaneous cancers of the thyroid, kidney, bladder and oral cavity accounted for an additional 15 cases.

The 25 non-cancer patients had surgery for cholelithiasis, hiatus or esophageal and other hernias, benign gastric ulcers, renal cysts, benign prostatic hypertrophy, pulmonary tuberculosis and post-irradiation cystitis.

PREOPERATIVE EVALUATION

As a rule, when the patients appeared for treatment at the Group, a complete history was taken, and a physical examination was performed by an internist. The x-ray or biopsy evidence indicating the presence of cancer was reviewed by a radiologist or a pathologist, and if any doubt remained, repeat films were taken and a repeat biopsy was performed. The patients underwent laboratory tests, including a blood count, urinalysis, serology, blood urea nitrogen, a fasting and recently a post-prandial blood sugar, a chest x-ray and a 12-lead electrocardiogram.

In addition, a determination of serum proteins and other liver tests such as bilirubin and alkaline phosphatase were obtained if indicated. Special examinations such as measurement of vital capacity, basal metabolism rate, serum uric acid, and x-ray studies of organs adjacent to or expected to reveal metastasis from tumors of special origin were also made. In a word, a careful medical work-up was performed on each patient, so that on admission to the hospital, a fairly good profile of the patient's tumor and general medical status was available.

On the basis of the medical findings, the patient was judged operable without known complication, or was hospitalized for a period sufficient to permit the correction of the abnormalities which had been discovered. Thus, previously unregulated diabetes was controlled, nutritional status was improved, electrolyte disturbance was corrected, blood transfusions were given, cardiac failure or arrhythmia was treated, infections were treated, and preparations for surgery were made.

Following surgery, the care of the patient was shared by the surgeon and the internist, the internist assuming a major role in regulating postoperative problems of blood volume, fluid and electrolyte balance, cardiac therapy, nutrition, management of diabetes or gout, and treatment of pulmonary complications and phlebitis.

PREOPERATIVE THERAPY

Let us now turn our attention to the problems that were encountered, so that we may see how they were managed and the results that were achieved. Of the 134 cancer cases, 52 had no serious medical problems, and went through surgery and the postoperative period without significant complications. Similarly, 15 of the 25 non-cancer cases tolerated surgery without complication.

The cardiovascular complications accounted for the chief group of problems associated with surgery. During the preoperative evaluations, some 11 cases had hypertension, 7 had histories of angina with effort (some with attacks at rest), 5 had histories of either chronic or paroxysmal auricular fibrillation, and 2 had histories of superventricular tachycardia. Frequent premature contractions of the ventricular type were found in 3 patients, right bundle branch block was found in 3, and left bundle branch block in 1 of them. Three patients were in frank cardiac decompensation during the preoperative evaluation period. In 4 there were significant murmurs of valvular disease, and 3 had aneurysms of the abdominal aorta. Six gave histories of previous myocardial infarction, and 4 recounted previous cerebral vascular accidents.

Preoperatively, the problems were handled in the usual fashion. Cardiac decompensation was controlled by digitalization, salt restriction, diuretics and rest. Rapid auricular fibrillation was slowed by the administration of digitalis, and angina was treated through the use of coronary artery vasodilators.

Evaluation was then undertaken to make sure that the patients had responded to therapy. No surgery was performed on patients who had overt congestive heart failure, or who had recently experienced myocardial infarction, active myocarditis or uncontrolled arrhythmias. However, surgery *was* performed on poor-risk cases whose cardiac decompensation was mild and chiefly right-sided, in the presence of coronary artery disease as manifested by angina pectoris or a history of a prior myocardial infarction, and in those who had a variety of murmurs indicative of compensated valvular heart disease. No patient in our series had complete heart block or carotid sinus syndrome.

The presence of incomplete heart block, bundle branch block, or hypertensive vascular disease without cardiac or renal failure added but little to the operative risk.

Of this group of 54 patients with complicating cardiovascular problems that had been discovered either pre- or postoperatively, only four died. One of them was a man in chronic auricular fibrillation who had an extensive carcinoma of the bladder. His heart failure cleared promptly on digitalis injections and diuretic and dietary therapy. Since the tumor was not resectable at exploration, a right cutaneous ureterostomy was performed to by-pass the obstruction. Despite the ureterostomy, the patient died in uremia, with manifest cardiac decompensation which had recurred postoperatively.

Another patient had been found on exploration to have extensive abdominal carcinomatosis arising from the pancreas, and developed a tumor containing effusion in the left chest. His tachycardia of 140 did not respond to the usual therapy, and he died about five days postoperatively. A third patient, in whom a carcinoma of the esophagus was resected and an esophago-gastric anastomosis was performed, died two days postoperatively of a cerebrovascular accident. A fourth patient, with cancer of the right lung, died of cardiac arrest while being anesthetized. The only abnormality in his preoperative work-up had been an occasional ventricular premature contraction. Neither quinidine nor procaine amide had been used preoperatively. There can be no question that the presence of advanced cancer contributed to the deaths of at least the first two of these patients.

To illustrate how well the cardiac invalid may tolerate surgery, I should like to cite the case of a 73-year-old man who had a carcinoma of the sigmoid colon. He had had an extensive anterior-wall infarction some 10 years before surgery. He had developed no evidence of cardiac decompensation, and had been on maintenance dosages of digitalis. He not only tolerated the abdominoperineal resection without difficulty, but even withstood a second procedure one week later in which a revision was made in his colostomy. Subsequently, he went into left heart failure despite maintenance digitalis and a cardiac regimen, but that complication was the result of his being given a 500 cc. blood transfusion too rapidly. The heart failure cleared promptly, and the patient left the hospital in very mild right heart failure, without electrocardiographic or other evidence of a recent myocardial infarction. He died about three weeks after discharge, at his home, in severe right and left heart failure, presumably from further myocardial insufficiency. This case illustrates the fact that further cardiac complications may occur, as indeed they do in an aged population at any time, but that the patient in borderline cardiac compensation may survive major surgical procedures. The risks of complication are, of course, greater in patients who have had prior difficulties in these areas.

The most frequent postoperative cardiac complication in our series was a bout of paroxysmal arrhythmia—either auricular fibrillation or superventricular tachycardia—which developed during the first postoperative week. This event, which occurred in six patients postoperatively, responded in all instances to rapid digitalization. In fact, the arrhythmia usually cleared on the day that therapy was started. In one patient, the arrhythmia persisted for some six days before converting to regular sinus rhythm. This patient had evidence of mitral insufficiency, whereas the others had no significant histories of cardiovascular abnormalities prior to surgery.

Procaine amide therapy was used preoperatively in one of the patients who had frequent premature ventricular contractions on the preoperative electrocardiogram. No difficulty was encountered during this patient's postoperative course.

So-called prophylactic digitalization was not carried out preoperatively on the basis of age alone. Significant cardiac failure or arrhythmia was the sole indication for the use of this agent. Only one patient, aged 88, went into left failure on the operating table, and he had an excellent response to intravenous digitalization given at that time. His cardiac evaluation prior to the operation had revealed no significant abnormality.

MANAGEMENT OF DIABETIC PATIENTS

Let us now turn to a consideration of the patients who had diabetes. There were 16 patients in that group who had been taking anywhere from 0 to 50 units of insulin per day. Eight of the 16 had taken insulin regularly prior to the development of their cancers. The others had such mild cases of diabetes that the disease was discerned only from elevated fasting blood sugars obtained prior to operation. No diabetic complications occurred in this group; no deaths were due to diabetes *per se;* and no deaths were related to the vascular changes of arteriosclerosis or nephropathy that are associated with this illness.

The usual form of management of these cases centered on a preparation designed to assure the patient freedom from acidosis, dehydration and depletion of liver glycogen. The long-acting insulin was generally continued up to a day or so before surgery. If the patient had taken no insulin previously, he or she was covered for spill three times a day before meals, the regular insulin being used up to the morning of surgery. In order that hypoglycemia, with its attendant risks, might be avoided during the operative and postoperative periods, no long-acting insulin, or indeed any insulin at all, was given on the morning of the surgery. However, infusions containing 5 per cent dextrose which were given during the

operation generally contained some 10 units of regular insulin. Postoperatively, sugar regulation was achieved through the administration of insulin at three-hour intervals, the amounts being determined on the basis of sugars in urine specimens obtained from the end of an indwelling catheter. As soon as a patient was able to eat, he was covered for spill before meals three times a day, and once a pattern of stable insulin requirements was achieved and oral intake was permitted, long-acting insulin was reinstituted.

It is well to point out that in one patient in this series a serious problem arose. Urine from the end of a catheter that had been indwelling for about 10 days showed heavy glycosuria while the patient clinically was in insulin shock. The blood sugars obtained at that time were in the range of 40. A partially-blocked catheter was responsible for the phenomenon. Although there was an adequate flow of urine, there was sufficient residual in the bladder above the partially-blocked catheter so that the specimen obtained from the end of the tube failed accurately to reflect the current state of the patient's blood sugar. Had a fresh catheter been inserted prior to the second operative procedure, this difficulty would not have arisen.

In another patient with a high threshold for glucose, urine sugars were consistently negative even though blood sugars generally ran over 300. This patient had had a partial pancreatectomy for a nerve-sheath tumor in the vicinity of the head of the pancreas. Management in this instance necessitated blood sugar tests. Following a period of two weeks after surgery, the patient had perfectly normal blood sugars and needed no insulin. In other cases, our experience was like that of other investigators in that we noted a sharply decreased need for insulin occurring several days to a week postoperatively. Thereafter, there was no need for insulin at all.

Postoperatively, an occasional patient was found to have mild diabetes on the basis of a morning fasting blood sugar taken a day or so after surgery, even though the preoperative work had failed to reveal it. Further postoperative studies yielded no confirmation other than an abnormal glucose tolerance test. An increase in the incidence of abnormal glucose tolerance tests signifying altered glucose metabolism in cancer patients has been the subject of comment in reports on several series, and quite large numbers of such individuals have been found to be diabetic. The incidence in our series was somewhat lower than what has usually been reported, being present in only 16 (12 per cent) of the 134 patients with cancer. However, routine glucose tolerance tests which might have revealed cases of mild diabetes were not done in the rest of the patients.

One of the interesting metabolic complications following surgery was acute gouty arthritis, which occurred in three cases in our series. An attack of acute gout may be precipitated by operative intervention, and indeed it is such a regular phenomenon that one can almost predict that a patient with a history of gouty arthritis will suffer an acute attack some three days to a week following surgery of a major type. In the past, such patients were treated with colchicine in a dosage of 0.5 mg. two or three times a day by mouth if they were tolerant of oral therapy. Otherwise, they were given colchicine intravenously twice a day. This treatment was effective in preventing attacks. In patients who actually developed arthritis, attacks were treated through the administration of colchicine either orally or intravenously, and as a rule, relief was effected within a day.

MORE SERIOUS COMPLICATIONS

Let us now turn our attention to more serious complications. It is to be noted that 10 of our patients died during the immediate postoperative period from complications of other than a cardiovascular nature. Of that number, six had either extensive recurrent or metastatic carcinomas. The deaths in this group were essentially attributable to the complication. In three cases, the effort to by-pass an obstruction due to recurrent carcinoma of the colon resulted in death. In another, an exploratory thoracotomy revealed advanced, nonresectable carcinoma of the lung, and the patient expired. In the fifth, the carcinoma of the lung was resected, but the patient died nine days postoperatively from a previously unrecognized brain metastasis. In the sixth, a carcinoma of the urinary bladder was found non-resectable, and a uremic death ensued.

The other four deaths resulted, in the main, from pulmonary complications. One man 83 years of age developed patchy bronchopneumonia after a subtotal gastrectomy for cancer, and succumbed. Another, aged 88, aspirated after a hemilaryngectomy and developed a lung abscess. A third developed pneumonia in the remaining lobe on the opposite side after one of his lungs had been resected for cancer. A fourth patient, aged 77, died of an ascending cholangitis despite the removal of a common-duct calculus.

Miscellaneous non-fatal complications occurred in an additional 12 patients. The bulk of these were related to the respiratory system. Pneumonia and pulmonary infarction occurred in four cases; pleural effusion in two; pneumothorax in one; and vocal-cord paralysis in another. The nonrespiratory complications included a blow-out of the duodenal stump after a subtotal gastrectomy in one patient, a rectovaginal fistula which developed after sigmoidectomy for cancer in another, and reversible uremia in a third patient who had only one remaining kidney. Pulmonary infarction was treated with anticoagulants in the cases referred to above and in another patient who presented phlebitis only.

Some mention should be made of the role of

adrenal insufficiency or prior adrenal-steroid therapy in patients presenting a need for cancer surgery. Two patients were thought to have adrenal problems, and it was suspected that their cancers might have metastasized to that area. One of them had been started on steroid therapy by another physician in advance of any sort of examination. Whether that patient did indeed have adrenal insufficiency or whether the administration of adrenal steroids *per se* might have depressed otherwise-normal adrenals and so rendered the patient unable to withstand surgical stress became a problem. The latter possibility was of particular concern, since in several reported series there have been sudden deaths during anesthesia in patients who, for one reason or another, had been on chronic or casual steroid therapy preoperatively.

Evaluation was undertaken in another patient, a 68-year-old man with carcinoma of the transverse colon, who had become suspiciously pigmented and who retained the bulk of a water load. He was found to excrete 10 mg. of 17-ketosteroids and 6 mg. of 17-hydroxocorticoids in 24 hours. He was given 25 units of ACTH in daily intravenous infusions for three days, and on the third day his urinary steroid output had increased to 15 mg. of 17-ketosteroids and 20 mg. of 17-hydroxocorticoids in 24 hours. This improvement was taken as evidence of adequate adrenal responsiveness, and no supplemental steroid therapy was given him. He tolerated the resection of his tumor of the transverse colon without untoward event.

In several younger patients who had been on adrenal steroid therapy—individuals not included in this series—an empirical approach was used. Cortisone was administered in the pre- and postoperative periods as if the patients were indeed adrenally insufficient. No deaths or complications occurred with this type of therapy.

The role of other endocrine dyscrasias in the evaluation of patients suspected of cancer was shown in two of our cases. One patient presented with a history of progressive ascites, and on examination was found to have a large pelvic tumor. At exploration, a large fibroid was removed. However, the acites continued to accumulate, and it was only then that her obvious hypothyroidism was diagnosed. On thyroid therapy, all traces of that woman's ascites disappeared. The other of these patients, a man of 68, presented with a similar complaint—i.e., recurrent ascites. He had been extensively studied in another hospital, and there the ascitic fluid had been said to contain tumor cells on pathologic study. Survey for a primary site was unrevealing, and GI, colon, chest and other studies revealed no abnormal findings. His physician referred him to our group for either surgical or chemotherapeutic management of his suspected cancer. When we first saw this patient, his skin was thick, his hair was sparse, his speech was slow and he complained of the cold in spite of the prevailing summer temperatures. Ascites and marked ankle edema were evident. In our studies, we found the protein-bound iodine to be 1.2 micrograms per cent. A radioactive-iodine uptake measured 5 per cent, and it failed to rise even after three days of thyrotropic-hormone therapy. A repeat paracentesis failed to reveal tumor cells. On gradually increasing dosages of thyroid, he had a diuresis, and his health is now good. He is maintained on 2.5 grains of thyroid daily, and is quite free of any clinical evidence that he could have a cancer.

Of course both of these patients had myxedema and the peritoneal effusion which may accompany this. There was no evidence of pericardial or pleural effusion, however. Surgery in these cases carries a risk of a severe reaction to morphine, for this sort of patient is unusually sensitive to it.

Perhaps these last two cases serve to illustrate the fact that there is no substitute for a careful diagnostic evaluation prior to any projected surgical undertaking. Only by considering the whole clinical picture, together with the laboratory and other evidence, can we give our patients the best chance of surviving operative intervention. Surgery may not be the indicated form of therapy when—as occasionally happens—we have been able to find that suspected cancer is not really cancer.

GENERAL PRINCIPLES OF MANAGEMENT

Now, as regards the general principles and practices pursued in the management of these cases. Anemia was generally corrected by whole blood or packed red cells if blood-volume deficits were present. Transfusions were not given during anesthesia, unless the blood loss incident to the surgical procedure was excessive, since reactions during anesthesia are difficult to diagnose. Oxygen was administered to all postoperative cardiac and pulmonary surgery patients for at least 24 hours after the operations. Postoperative fluid replacement was generally limited to 1,000 cc. above the measured urinary and emetic output. Sodium chloride was restricted for several days following surgery, especially in cardiac patients, in view of the retention of sodium which occurs in the immediate postoperative period. However, the loss of electrolytes in gastric aspirations, diarrhea, etc. occasionally makes the administration of electrolyte and added fluids necessary.

Patients were encouraged to cough frequently in order to insure adequate ventilation and oxygen exchange, and to prevent pulmonary complications. On occasion, endotracheal suction was instituted in order to remove aspirated secretions. In one case, indeed, a patient who had had a carcinoma of the stomach developed a rising fever, cyanosis and evidence of approaching death. But an accumulation of bronchotracheal secretions was discovered, and following aspiration by endotracheal

tube, the entire clinical picture reversed itself and he recovered. Had it not been for this treatment, there is no question that this patient would have died.

Under other circumstances, we have had no hesitation to perform a tracheotomy to insure a tracheal toilet. On occasion, Levophed was used to maintain blood pressure which, for one reason or another, had fallen. In one case, indeed, such therapy turned the tide in a patient after a subtotal gastrectomy.

Bronchospasm was treated with either aminophyllin by vein or suppository, or epinephrine by injection or nebulizer. Antibiotic therapy was freely given during this 10-year period—before it became obvious that complications of bacterial resistance must be avoided. Actually, we quite fortunately found no evidence of Staphylococcus enteritis in the cases that we studied, but we certainly are now using antibiotics much less than formerly, and no longer practice the so-called prophylactic antibiotic therapy. As always, careful attention was paid to the legs of the patients postoperatively, and frequent leg exercises were insisted upon. Unfortunately, the veins of the legs were frequently used for intravenous therapy during surgery, yet little phlebitis developed in this series. Early ambulation was constantly practiced in our management of this group of patients.

MORTALITY

Despite our efforts, a total of 13 deaths occurred in the 134 cases of major surgery for cancer. Thus, the overall mortality rate was 10 per cent. If one were to exclude those who died as a result of extensive carcinomatosis, where surgery was undertaken either for diagnostic purposes or for purely palliative reasons, the number of deaths could be reduced to five, and the mortality rate to 3.7 per cent. This rate is comparable with the 4 per cent mortality (one death in 25 cases) among patients operated upon for non-cancerous conditions. Of course the significance of the rate in a series of only 25 patients is relatively negligible.

These mortality figures do not differ essentially from those for other reported series of patients over 65 years of age. LaDue and Marshall, whose group of 161 patients over 70 years of age were also treated by the Pack Medical Group, though at other hospitals, have reported an overall mortality rate of 12.4 per cent. Other large series of patients with cardiovascular disease who underwent surgery are reported to have shown mortality rates varying from 1.5 to 24 per cent.

Dr. Gleen, reporting recently on a series of 397 patients aged 65 years and over who were operated upon for non-malignant biliary disease, has given his mortality rate as 6.5 per cent. In a younger group of patients (50-64 years) only 2.3 per cent died, and in patients under 50 years of age, the mortality rate was 2.6 per cent. In Dr. Gleen's patients over 65 years of age, the presence of cirrhosis was associated with a mortality rate of 33 per cent; chronic renal disease with a rate of 16 per cent; and chronic cardiac or pulmonary disease with rates between 6 and 8 per cent. Those over 65 years of age with no major degenerative disease had a death rate of only 2.7 per cent.

CONCLUSION

Though these statistics don't make it seem that surgery is an altogether innocuous procedure for aged patients, they do support the view that major procedures are surprisingly well tolerated by such people. Though age *per se* is no major contraindication to surgery, the complicating associated diseases that attend old age take their toll. It would appear that cancer, as the underlying illness requiring surgery, imposes no added burden, unless the cancer is extensive and the contemplated procedure is merely exploratory or palliative.

The role of the internist is essential in the evaluation and management of the illnesses that are associated with cancer in the aged patient. All will agree that a competent surgeon and an able anesthetist are essential, since they play major roles during the patient's surgical experience, but the internist's careful preoperative examination and postoperative supervision are likewise necessary if the aged patient is to recover. Understanding the physiologic problems and applying the principles of medical care are major factors in assuring the patient the best possible results from surgery. Thus, the internist completes the team of surgeon and anesthetist in caring for the aged patient who must undergo cancer surgery.

REPOSITORY FOR MEDICAL CREDENTIALS

On July 1, 1958, the World Medical Association established a central repository for medical credentials for doctors of all countries. Repository officials suggest that doctors should secure photostatic copies of their medical school records, medical diplomas and specialist credentials for safekeeping there. For a newly-graduated doctor the lifetime cost of the service is approximately $60, and an actuarial schedule has been established for charges to doctors in various older age groups. A 10-year rate is also available.

During war and national uprisings, medical records are often lost or destroyed. For this reason, many doctors are today unable to utilize their professional skills.

Requests for forms and additional information regarding the central repository are available from the World Medical Association, 10 Columbus Circle, New York 19.

Doctors are warned to send copies of their credentials for safekeeping, not the original documents.

Asiatic Influenza in a Midwestern Town

With a Comparison of Intradermal and Subcutaneous Vaccination

L. J. KIRKHAM, M.D.

MASON CITY

THE "ASIATIC INFLUENZA" pandemic is still too recent to require more than a brief review for most American physicians.[1] An epidemic of influenza in Hong Kong was first reported by the newspapers in the middle of April, 1957. Within five weeks, an antigenically new strain of the influenza virus had been isolated at the Walter Reed Army Institute of Research from several areas in the Orient, and specimens of it were being distributed to appropriate pharmaceutical manufacturers for the development of a new vaccine.

Within another two weeks, the vaccine was ready for testing, and on August 12, the first 500,000 doses were released to the armed services and to civilians in the United States. By that time, the new strain had already spread centrifugally from its apparent initial locus in Hong Kong to involve nearly every country in the world, and a pandemic was well started.

Initially, the vaccine was standardized at a potency of 200 CCA (chicken cell agglutinating) units in order to allow for rapid production of large amounts of it. This potency was regarded as strong enough to be of definite value, though it was recognized that a greater antigenic stimulation would have been desirable.

Early in November, the Public Health Service recommended increasing the potency to 400 CCA, but this study is concerned only with the use of the 200 CCA monovalent vaccine.

Initially, it was recommended that the vaccine be given in 1 cc. doses subcutaneously, but it soon became apparent in our community, at least, that the vaccine would not be available in anything like adequate amounts in time to protect either those engaged in "essential" occupations or those who needed it for purely medical reasons. Accordingly, most physicians followed the suggestions of Tuft[2] and used the vaccine sparingly by giving only 0.1 cc. (20 CCA) intradermally, although Tuft indicated that it was probably not so effective as the 1.0 cc. dose.

It would seem logical that if one had only 100 cc. of vaccine available, he could protect a maximum of 70 persons by administering 1.0 cc. doses, since on the basis of past experience with influenza vaccine, it was estimated that such a dose would have about a 70 per cent effectiveness. However, 1,000 persons could be given doses of 0.1 cc. each, and the intradermal method would have to be only 10 per cent effective to protect a greater number of individuals. And there was adequate reason on the basis of past experience for believing that the smaller dosage would be considerably more than 10 per cent effective.[3]

Since November 30, 1957, conflicting reports have appeared concerning the relative effectiveness of intradermal vs. subcutaneous injections. Indeed, intradermal injections have been condemned as definitely inadequate.[4] But the conflicting reports have been based primarily on laboratory studies. This report is presented in the hope that it will shed some light on the matter from purely a clinical case-study point of view.

THE MASON CITY STUDY GROUP

The people used in our comparison of intradermal versus subcutaneous injections were taken from a private practice of general internal medicine. Those used in the determination of the influenza incidence in this community were obtained from random-selected households. The death statistics were calculated after a study of the death certificates filed in the office of the Cerro Gordo County clerk.

Incidence. Mason City is a prosperous shopping center in the rich farming area of north central Iowa. The 1950 census indicated a population of 27,980, and there is no reason for supposing that a marked population shift has occurred there since 1950. The information was obtained by 150 questionnaires sent to as many randomly selected households. Seventy-three usable replies were obtained. They covered 302 individuals, of whom 211 (69.9 per cent) had *not* received the influenza vaccine. Of those 211 individuals, 93 (44.1 per cent) had contracted influenza in the epidemic during the last week of October and the first part of November. Among those 93 individuals who contracted influenza, the mean duration of disability was 6.6 days, with a standard deviation of ± 3.0 days. A day of disability, it had been stipulated, was one in which the individual was unable to attend school or do a usual day's work. The information obtained was insufficient to permit age and sex comparisons. The mean number of people living in a household was 4.13.

Relative Effectiveness of Intradermal vs. Subcutaneous Vaccination. Information on the efficacies of the two technics of vaccination was likewise obtained by means of questionnaires, sent

either to the vaccinated individual or to his parents. In response to 250 questionnaires, we received 198 usable replies. These questionnaires were quite a bit longer than the ones sent to the general population because questionable or incomplete replies could be followed up by direct contact. No cases of influenza were regarded as having occurred in spite of the vaccine unless the illness started at least seven days after the last vaccine injection, and no case was regarded as influenza unless it caused at least two days of disability. As a matter of fact, no cases involving less than two days of disability were reported. The ages and sexes in the two groups were essentially the same, and as regards age and sex, there was no significant difference between those who did and those who did not contract influenza. It is to be noted that these groups were made up of selected individuals and included those in essential occupations, those who had medical reasons for avoiding influenza and a few overly apprehensive individuals. The mean age was 35 years, and the sample contained 63 per cent females.

The results are summarized in Table 1. There were four groups for comparison:

1. Those who had received 0.1 cc. (20 CCA units) intradermally.
2. Those who had received two 0.1 intradermal injections, with a week's interval between them.
3. Those who had received 1.0 cc. (200 CCA units) subcutaneously.
4. Those who had received 0.1 cc. intradermally and then 0.9 cc. subcutaneously when no reaction occurred (and none did react to the skin-test dose within 30 minutes).

The fifth line in Table 1 combines groups 1 and 2—i.e., it gives figures for all of the individuals who received their vaccine intradermally, though in differing total amounts. The sixth line combines groups 3 and 4—i.e., those who received at least 200 CCA units, most of them subcutaneously. One can readily see that there was no significant difference in the protection afforded these people. About 10 per cent of all vaccinated individuals contracted influenza, regardless of the size of the dose and the method used in administration.

The second pertinent question which must be answered if possible is whether or not vaccinated individuals who caught influenza suffered less from the disease than did non-vaccinated individuals. And a third question is whether or not the dose or method of administration of vaccine had any effect on the severity of the illness. The difficulty in attempting to answer these questions in respect to influenza lies in the nature of the disease itself. The only really objective measurement of its severity would be an accurate temperature record. This is difficult to obtain in a good hospital, and quite impossible in the home, where most of these patients were treated. One must therefore rely upon the essentially subjective measurement of the number of days of disability. This difficulty is compounded when one attempts to analyze such a small series as this study represents. Nevertheless, an attempt at analysis could do no harm as long as the potential for error was understood.

Simple inspection shows that there was no significant difference in number of days of disability between the intradermal-injection groups (line 5 of Table 1) and the general-population group. For the former, the figures was 6.5 ± 4.9 days, and for the latter it was 6.6 ± 3 days.

Comparison is not so simple a task when one comes to the subcutaneous groups, and statistical analysis must be resorted to.* The first method is that of determining the standard error of the difference between the two means under scrutiny (6.6 ± 3, and 4 ± 2.18), and comparing that figure with the actual difference. In the formula

$$\sqrt{\frac{\delta GP^2}{NGP} + \frac{\delta SC^2}{Nsc}},$$

δGP = the standard deviation from the mean days of disability in the general population study; δsc = the standard deviation from the mean of the subcutaneous group; NGP = the number of individuals with influenza in the general population; and Nsc =

* For the formulae used, the author is indebted to books by Hill[5] and by Dixon and Massey.[6]

TABLE 1
INTRADERMAL VERSUS SUBCUTANEOUS VACCINATION

Line	*Number of Individuals*	*Method of Administration*	*Dose*		*Cases of Influenza*		*Mean Number of Days' Disability*
			Volume	*CCA Units*	*Number*	*Per Cent*	
1	74	Intradermal	0.2 cc.	40	8	*9.3*	7.0 ± 5.2
2	37	Intradermal	0.1 cc.	20	3	*8.1*	5.0 ± 4.4
3	31	Subcutaneous	1.0 cc.	200	3	*9.7*	2.3 ± 1.4
4	54	SC and ID	1.0 cc.	200	6	*11.1*	4.8 ± 2.4
5	111	(Total of lines 1 and 2, above)			11	*9.9*	6.5 ± 4.9
6	87	(Total of lines 3 and 4, above)			9	*10.3*	4.0 ± 2.18

the number of individuals with influenza in the subcutaneous group. Substituting, we have

$$\sqrt{\frac{(3)^2}{93} + \frac{(2.18)^2}{9}},$$

or a standard error of 0.756. By convention, any value which is greater than twice the standard error is considered significant. The actual difference between the mean days of disability of the general population (6.6) and the mean days of disability of the subcutaneous group (4) is 2.6, or almost 3½ times the standard error (0.756). Therefore the difference is significant.

However, this method which I have just used is not altogether reliable when the samples are small. Consequently, more support would be helpful, and it can be found in the "Z tables" provided by Dixon and Massey for use in comparing a sample mean with a population mean when the standard deviation of the population mean is known. Where $\bar{x}$ = the mean of the subcutaneous group, μo = the mean of the general population, δ = the standard deviation of the population and N = the number of individuals in the subcutaneous group who caught influenza, then

$$Z = \frac{\bar{x} - \mu o}{\delta / \sqrt{N}}.$$

Substituting, we have

$$Z = \frac{4 - 6.6}{3 / \sqrt{9}} = -2.6.$$

At the 5 per cent level of significance, the tables indicate that Z must be less than -1.96 or greater than 1.96. Since the value calculated for Z is outside those limits, if the mean of the population is 6.6 days, then there is less than a 5 per cent chance that the mean number of days of disability suffered by 9 individuals would be as far away as 4. Thus, the significance of the difference we found is substantiated.

It must be borne in mind, nevertheless, that these calculations don't constitute proof. They merely indicate the probability—assuming the sample was an accurate one—that the subcutaneous injections of the vaccine in a 200 CCA dose does decrease the number of days of disability for those individuals who contract influenza in spite of the vaccine.

Mortality. One of the most interesting studies of the effects of the influenza epidemic on a general population was that of Tayback and Reyes[7] on the city of Manila. They found the overall attack rate to be about 70 per cent, with a peak incidence in the 1-15 year age group. They also found the total mortality rate had more than doubled during the month of the influenza epidemic.

A similar study was done in Cerro Gordo County, Iowa, population 46,053. The death certificates on file in the county clerk's office provided us material from which to discover the number of deaths during each month of the four preceding years, November, 1953, to November, 1957. The mean number of deaths from all causes was found to be 49 per month, with a standard deviation of ± 7.4. There appeared to have been no one month when the deaths were consistently more or fewer than the average. To check on this possibility, we gave special attention to the number of deaths which had occurred in the Novembers of the preceding *five* years. The mean of those figures was found to be 43.6 ± 8.5. The deaths during the month of November, 1957, the month of the epidemic, totaled 78. In terms of death rate per thousand of population, the mean for all months in the preceding four years was 1.06 ± .16; the mean for the Novembers of the preceding five years was 0.96 ± .18; and the rate for the month of November, 1957, was 1.7 per thousand. Thus, a rise of about 70 per cent in deaths from all causes per 1,000 of population was demonstrated to have occurred in the month of the influenza epidemic.

TABLE 2

DEATHS BY FINAL DIAGNOSTIC CATEGORIES
IN CERRO GORDO COUNTY, IOWA, DURING THE NOVEMBERS OF 1952 THROUGH 1957

Month and year	*Cardiac*		*Congenital (Perinatal)*		*Renal*		*CVA*		*GI*		*CA*		*Pneu.*		*Accidental*		*Misc.*	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
Nov. '52	16	*47.1*	1	*2.9*	1	*2.9*	4	*11.8*	1	*2.9*	4	*11.8*	2	*5.9*	2	*5.9*	3	*8.8*
Nov. '53	12	*30*	2	*5*	5	*12.5*	7	*17.5*	1	*2.5*	6	*15*	2	*5*	4	*10*	1	*2.5*
Nov. '54	6	*16.3*	2	*5.4*	8	*21.6*	6	*16.2*	2	*5.4*	3	*8.1*	6	*16.2*	3	*8.1*	1	*2.7*
Nov. '55	17	*34*	2	*4.*	5	*10*	6	*12*	0	*0*	12	*24*	4	*8*	1	*2*	3	*6*
Nov. '56	17	*29.8*	1	*1.7*	10	*17.5*	7	*12.3*	0	*0*	7	*12.3*	8	*14*	3	*5.3*	4	*7.1*
Mean	13.6	*31.4*	1.6	*3.8*	5.8	*12.9*	6	*14*	0.8	*2.2*	6.4	*14.2*	4.4	*9.8*	2.6	*6.2*	2.4	*5.4*
Nov. '57	27	*34.6*	4	*5.1*	6	*7.7*	9	*11.6*	0	*0*	9	*11.6*	13	*16.6*	2	*2.5*	8	*10.2*

In order to see what patients might have benefited most from the protection afforded by the vaccine, the deaths of the preceding Novembers were broken down into diagnostic categories and expressed in percentages (Table 2). Line six in that table shows the means of the various categories, and line seven shows the actual numbers of deaths ascribed to each of them which occurred in November, 1957. It is apparent from those figures that in November, 1957, there were more than the usual number of deaths in all categories excepting accidents, and gastrointestinal and renal diseases. The percentage figures indicate that there was a relatively greater rise in deaths from pneumonia and miscellaneous causes. The actual final diagnoses in the latter category are indicated in Table 3. They show that the rise was due to an increase in deaths from infectious processes of one sort or another.

TABLE 3

FINAL DIAGNOSES IN THE MISCELLANEOUS CATEGORY IN THE VARIOUS NOVEMBERS

November 1952	Phlebitis
	Huntington's Chorea
	Brain Tumor
November 1953	Pulmonary Embolism
November 1954	Peritonitis
November 1955	Phlebitis
	Peritonitis
	Mesenteric Infarction
November 1956	Anemia (two cases)
	Aneurysm
	Esophageal Varices
November 1957	Gangrene and Infection of Leg (two cases)
	Aneurysm (two cases)
	Peritonitis
	Exposure
	Bacterial Parotitis
	Esophageal Varices

The deaths are divided according to age and sex in Table 4. Of those who died in Cerro Gordo County during the month of the epidemic, 59 per cent were males and only 41 per cent females. The table demonstrates that deaths among males past 60 years of age tended to be more numerous than the means for the five preceding Novembers. The deaths among females in the same age groups tended to be lower than the means. I can offer no explanation for this finding. Male and female groupings were also made of the deaths in each diagnostic category, but no significant findings were revealed by that means. Apparently the elderly male is less able to withstand an acute infectious insult than is the elderly female.

DISCUSSION

Incidence. It can easily be appreciated that statistics based on answers to questionnaires have certain inherent sources of error. Direct interviews eliminate some of these errors, but by no means all of them. Not the least of the weaknesses of the present study was that medically untrained individuals were relied upon to make a diagnosis of influenza. Making influenza a reportable disease would improve the accuracy of the diagnoses, but the resultant figures would not reflect the true incidence since some people wouldn't find it necessary to consult a physician.

When one has considered the variables, it still seems reasonable to conclude that about one-third of the people of Mason City, Iowa, received injections of the 200 CCA monovalent influenza vaccine, and that of the remaining two-thirds, about 45 per cent developed influenza. Since about 10 per cent of the individuals who received the vaccine caught influenza anyway, we can estimate that the overall incidence was about 33 per cent. This figure can be compared to the 70 per cent attack rate found in Manila. The other published figures on attack rates cover only selected groups and are not strictly comparable. They vary from 31 per cent in an oil company labor force in

TABLE 4

DEATHS BY AGE GROUP AND SEX
IN CERRO GORDO COUNTY, IOWA, DURING THE NOVEMBERS OF 1952 THROUGH 1957
(Expressed in Percentages of the Total Deaths for Each Respective Month)

Ages in Years	*1952*		*1953*		*1954*		*1955*		*1956*		*Mean Male*	*1957 Male*	*Mean Fem.*	*1957 Fem.*
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*				
100-109												1.3		
90-99	2.9			5	5.4	10.8	1.2	2		5.3	2.1	3.9	4.6	1.3
80-89	8.8	14.7	12.5	15	13.5	8.1	10	10	14	15.8	11.7	14.1	12.7	7.7
70-79	8.5	20.6	7.5	7.5	16.2	16.2	18	14	12.2	15.8	12.5	11.5	14.9	11.5
60-69	2.9	8.8	17.5	5	8.1		8	12	12.2	10.5	9.7	15.4	7.3	11.5
50-59	8.5	5.9	7.5	2.5			6	4	5.3	1.8	5.5	5.1	2.8	3.9
40-49		2.9	2.5	5	2.7		2		3.5		2.1	1.3	1.6	1.3
30-39							2				0.4	1.3		
20-29	2.9		2.5				2				1.5	1.3		1.3
10-19			2.5		2.7						1	1.3		
0-9	2.9	2.9	7.5		8.1	8.1	2	6	1.8	1.8	4.4	2.6	3.7	2.6

Arabia[8] to 11.5 per cent in a Canadian Girl Guide camp[9] to an average rate of 5.7 per cent in the armed forces groups reported by the Commission on Influenza of the Armed Forces.[10] Bell *et al.*,[11] in volunteer studies, found an attack rate of 48 per cent. The difference between the Mason City and the Manila attack rates probably can be explained on two bases: (1) the use of a potent vaccine in Mason City, and (2) the larger households in Manila (7.2 persons each).

The mean number of days of disability found in Mason City (6.6 days) was nearly identical with that found in the Arabian outbreak (6.9 days). On this point, no other comparable studies are available, although the report by Schreiber[12] of an outbreak aboard a transport ship indicated about 7 days' disability. The report by Bell *et al.* contained an excellent clinical study of the course of the disease, but since it concerned artificially infected volunteers, the findings aren't comparable with those in Mason City.

Relative Effectiveness of Intradermal vs. Subcutaneous Vaccination. Tuft first suggested the intradermal method of immunization in September, 1957, as a method of conserving vaccine. He based his suggestion partly on the work that he and others had done with other vaccines, and partly on a preliminary report from Hilleman and his associates. Van Gelder *et al.*[3] had shown with types A and B polyvalent vaccine that a single intradermal injection was definitely better than a single subcutaneous injection. The excellent study by Hilleman *et al.*[13] was later reported in full and confirmed the early impression that 0.1 cc. intradermally is as good as 1.0 cc. subcutaneously in initiating the appearance of HI antibodies. The complete Hilleman report also showed that the second dose, regardless of the method of administration, gave about the same additional rise in HI antibody titer.

It is to be noted that within each group the antibody response was roughly proportional to the number of CCA units given—i.e., 160 CCA units subcutaneously and 16 CCA units intradermally gave the same antibody response, whereas 500 CCA units subcutaneously and 50 CCA units intradermally each produced about a 50 per cent greater response. Bell *et al.* found no significant differences between antibody titers (both CF and HI antibodies) after doses of 200 CCA units and 500 CCA units when both had been administered subcutaneously. They also found no differences between the two groups in the percentages of volunteers who contracted influenza.

In November, 1957, Boger and Liu[4] reported the results, in terms of HI antibody titers, in groups of elderly patients after vaccination with 500 CCA units subcutaneously and 50 CCA units intradermally. They found that the intradermally-injected group had decidedly lower antibody responses than did the subcutaneously-injected group, and on the basis of their findings they condemned the use of intradermal immunization. Sadusk[14] also recommended against using the intradermal method because he felt that HI antibody titers didn't necessarily reflect the states of immunity of human patients. On the other hand, Sigel *et al.*[15] found that 20 CCA units intradermally gave as good a CF antibody-titer response as did 200 CCA units, and further that a second intradermal injection gave a considerably greater response than did a second subcutaneous injection. The best explanation I can offer for the contrary report by Boger and Liu is that perhaps the elderly individual just doesn't respond as well to intradermal immunization. In the Mason City series there was a fair representation of elderly individuals, however, and none of them developed influenza after intradermal vaccination. In the present report, certainly, there is no evidence of a significant difference between the two methods in so far as preventing influenza is concerned.

The 10 per cent incidence in vaccinated individuals, compared with the incidence of about 45 per cent in the general population, indicates that the vaccine protected about three out of four individuals. Therefore, it was about 75 per cent effective. This figure can be compared with the average of 64 per cent effectiveness found in the armed forces studies and the effectiveness of about 43 per cent found in the Bell group. Among selected groups in Britain, it was found that subcutaneously-injected vaccine gave from 52 to 75 per cent protection,[18] and that the degree of protection had no apparent relation to the size of the dose (175 and 500 CCA units). The differences are rather striking, and aside from methodological errors, must be due to differences in duration and intensity of exposure.

It is hazardous to venture an opinion concerning the relative degrees of disability between vaccinated and unvaccinated individuals who contracted the disease. In both the Mason City series and the one reported by Bell *et al.*, there appeared to be a tendency for the subcutaneously vaccinated persons to have less severe illnesses. However, both groups were too small to warrant the drawing of anything more than tentative conclusions from those findings.

Mortality. Early in the course of the pandemic, and prior to its reaching this country in force, both the medical and the lay publications had a tendency to stress the low death rate and the general benignity of the disease, in a praiseworthy attempt to prevent panic. But the fact is that an influenza pandemic caused by a new strain produces a situation which does not allow for a complacent attitude. Undoubtedly, case for case, this new strain causes fewer deaths and less disability than did the one that brought about the 1918-1919 pandemic. Yet, its impact upon a nonimmune population elevates the total death rate enough to justify some concern, especially for individuals in the older age groups.

The report from Manila was published in the

October, 1957, issue of PUBLIC HEALTH REPORTS, and it made it quite clear that the total death rate there had risen to more than twice its expected level. The report by Herrmann *et al.*,[16] from Denver, showed much the same thing, for it made quite clear that the total death rate from respiratory illnesses in the State of Colorado almost doubled (from 54 to 93). This Denver paper dealt primarily with 23 deaths from acute respiratory infections referred to the Denver coroner's office, as opposed to the usual three such cases. It is of interest that those Denver deaths showed no particular age grouping. The report from Aden[17] indicated a 60 per cent increase in the total death rate. The death rate from Cerro Gordo County, Iowa, would indicate that anyone past the age of 60 years certainly should be immunized as soon as possible.

SUMMARY

1. The overall incidence of influenza in the town of Mason City, Iowa, during the month of November, 1957, was about 33 per cent. About one third of the people had received monovalent influenza vaccine prior to and during the epidemic. The incidence of influenza among those who had *not* received the vaccine was about 45 per cent.

2. The incidence of influenza among two groups of people who had received all of their vaccine intradermally (no more than 40 CCA units each) and who had received most of their vaccine subcutaneously (at least 200 CCA units), respectively, was essentially identical—i.e., about 10 per cent for both groups. This finding showed a vaccine protective effect of about 75 per cent.

The illness may have been somewhat less severe in those who had received the subcutaneous injections, but the number of cases was too small and the method of sampling too inaccurate to support a definite conclusion in this respect.

3. It has been demonstrated that the disease had a decidedly adverse effect on life expectancy in people of the older age groups, and it is accordingly recommended that physicians should now concentrate upon immunizing all people past the age of 60 years as rapidly as possible. We can expect to be dealing with this particular strain of type A influenza throughout approximately the next 10 years.

4. In so far as preventing influenza is concerned, it probably makes little difference whether one administers the vaccine intradermally or subcutaneously. If questions of economics or of scarcity of vaccine arise, it is felt that the intradermal method, using two doses at an interval of two weeks, would provide adequate protection.

The author is indebted to Dr. Lloyd A. Knowler, chairman, Department of Mathematics and Astronomy, State University of Iowa, for kindly reviewing this paper and making many valuable suggestions.

REFERENCES

1. Dunn, F. L.: Pandemic influenza in 1957. J.A.M.A., **166**:1140-1148, (Mar. 8) 1958.
2. Tuft, L.: Intracutaneous administration of Asian influenza vaccine. J.A.M.A., **165**:278, (Sept. 21) 1957.
3. VanGelder, D. W., Greenspan, F. S., and Dufresne, N. E.: Influenza vaccination; comparison of intracutaneous and subcutaneous methods. U.S. Nav. M. Bull., **47**:197-206, (Jan.-Feb.) 1947.
4. Boger, W. P., and Liu, O. C.: Subcutaneous and intradermal vaccination with Asian influenza vaccine. J.A.M.A., **165**:1687-1689, (Nov. 30) 1957.
5. Hill, A. Bradford: Principles of Medical Statistics, Sixth Edition. New York City, Oxford University Press, 1955, pp. 107-118.
6. Dixon, Wilfred J., and Massey, Frank J., Jr.: Introduction to Statistical Analysis. New York City, McGraw-Hill Book Company, Inc., 1951, pp. 84-96.
7. Tayback, M., and Reyes, A. C.: Philippine influenza epidemic of 1957. Pub. Health Rep., **72**:855-860, (Oct.) 1957.
8. Guthrie, J., Forsyth, D. M., and Montgomery, H.: Asiatic influenza in Middle East. Lancet, **2**:590-592, (Sept. 21) 1957.
9. Rebhan, A. W.: Outbreak of Asian influenza in girls' camp. Canad. M.A.J., **77**:797-799, (Oct. 15) 1957.
10. Commission on Influenza, Armed Forces Epidemiological Board: Vaccination against Asian influenza. J.A.M.A., **165**:2055-2058, (Dec. 21) 1957.
11. Bell, J. A., Ward, T. G., Kapikian, A. Z., Shelokov, A., Reichelderfer, T. E., and Huebner, R. J.: Artificially induced Asian influenza in vaccinated and unvaccinated volunteers. J.A.M.A., **165**:1366-1373, (Nov. 16) 1957.
12. Schreiber, H.: Observations and report of influenza epidemic aboard military sea transport. J.A.M.A., **165**:1683-1686, (Nov. 30) 1957.
13. Hilleman, M. R., Flatley, F. J., Anderson, S. A., Leucking, M. L., and Levinson, D. J.: Antibody response on volunteers to Asian influenza vaccine. J.A.M.A., **166**:1134-1140, (Mar. 8) 1958.
14. Sadusk, J. F.: Intracutaneous administration of Asian strain influenza vaccine. J.A.M.A., **165**:1860, (Dec. 7) 1957.
15. Siegel, M. M., Edwards, H. K., Schlaepfer, G A., Wellings, F. M., and Beasley, A. R.: Preliminary findings on vaccination against Asian influenza. J.A.M.A., **165**:1860-1861, (Dec. 7) 1957.
16. Herrmann, R. E., Ogura, G. I., Johnson, E. S., Toll, H. W., Jr., and White, W. C.: Respiratory deaths associated with Asian influenza epidemic J.A.M.A., **166**:467-471, (Feb. 1) 1958.
17. Fawdry, A. L.: Influenza epidemic in Aden. Lancet, **2**:335-336, (Aug. 17) 1957.
18. Medical Research Council, Committee on Influenza: Trials of Asian influenza vaccine. Brit. M. J., **1**:415-418, (Feb. 22) 1958.

Remodeling at AMA Headquarters

The AMA has contracted for a $2,000,000 remodeling job that will effect a number of highly visible changes in its headquarters building at 535 North Dearborn Street, Chicago. New lobbies will be built, air conditioning and automatic elevators will be installed, acoustic ceilings will be put into all corridors and offices, and the lights, the office floors and some of the office partitions will be replaced. An improved division of space will provide adequate meeting places and restaurant facilities for employees and visiting member physicians. The job will take 24 months.

The AMA has occupied its present site since March, 1902, when it purchased the land and the five two-story buildings that then were on it for $42,000. Demolishing those structures and erecting a three-story building cost the Association no more than an additional $35,000, but the facilities thus provided proved too small within a very few years. Some adjacent ground was purchased in June, 1903, and the first of many additions and remodelings was undertaken shortly thereafter. The present nine-floor structure was completed in 1947.

Relaxin—Its Use in Normal Obstetrics

R. O. SWANN, M.D., AND G. F. SCHUMACHER, M.D.

IOWA CITY

RELAXIN, the third ovarian hormone, was first described by Hisaw[1] in 1926. There are numerous reports in the literature dealing with relaxin's chemical composition, its properties and its activities in specific animal experimentation.

The hormonal nature of relaxin has been demonstrated in such animals as the mouse, the guinea pig and the rabbit. In 1955, Zarrow, Holmstrom and Salhanick[2] reported their studies in human beings and large animals, showing that during pregnancy this hormone increases dramatically, especially near term. It is believed that at least three organs, namely the ovary, the placenta and the uterus, are involved in its production.

The drug is of low molecular weight, and it is a simple protein or a polypeptide. The exact mode of action of relaxin is unknown, and the actions claimed for it are still in a highly controversial stage. It is not found in the male or in the nonpregnant female.

At the present time, relaxin is commercially obtained from the ovaries of the pregnant sow. The action is standardized by administering it to castrated guinea pigs which have previously been primed with estrogen. One guinea-pig unit has been defined as the amount necessary to induce relaxation of the symphysis pubis in an estrogen-primed castrated guinea pig. Today, the drug is standardized in terms of milligrams, 150 guinea-pig units equaling 1 mg. It is being marketed under the trade names Cervilaxin (National Drug Company) and Releasin (Warner Chilcott Laboratories), either of which contains 20 mg./cc. Each commercially available vial contains 2 cc., or 40 mg. of relaxin.

Numerous claims have appeared in the literature regarding the merits of relaxin in the control of premature labor having its onset between the twenty-ninth and the thirty-sixth week of gestation, provided the cervical dilatation does not exceed 3 cm. But early enthusiasm regarding its use in premature labor has waned. It is extremely difficult to differentiate false labor contractions from premature labor without evidence of progressive effacement or dilatation of the cervix. Many obstetricians are reluctant to make a diagnosis of labor without definite evidence of progressive effacement and/or dilatation of the cervix. In the relatively few cases in which we have employed this drug in questionable premature labor, we have been unimpressed, for we have not seen any action that could definitely be attributed to the drug. It has been recommended that relaxin be used in preparation for the induction of labor, since it is claimed that it produces cervical softening, thus favoring successful induction. Further studies are required before definite conclusions can be made regarding its value in the induction of labor.

It has been further recommended that the drug be employed in conjunction with dilute intravenous Pitocin to facilitate labor in cases of uterine inertia. Here is still another controversial area, since many obstetricians are reluctant to accept "cervical dystocia" as an entity.

Birnberg and Abitbol[3] have used relaxin in "accelerated labors." The drug was given to patients in prodromal labor after membranes have been ruptured and dilute intravenous Pitocin has been started. They concluded that the subsequent duration of labor is shortened in consequence of a marked softening of the cervix, permitting easier and more rapid dilatation. Unfortunately, theirs was not a double-blind study, and thus it is difficult to be sure whether the rate of administration of the dilute intravenous Pitocin was responsible for the shortening of labor, or whether the relaxin caused it. The administration of an oxytocic agent to a woman undergoing normal labor is fraught with danger of uterine rupture or of intracranial damage as a result of "driving" the baby through the maternal birth canal. Thus, the use of such material in a labor that is progressing normally cannot be recommended. At the present time, Birnberg and Abitbol's original work is being repeated as a double-blind study.

It has been recommended that relaxin be used in normal labor (1) to shorten labor; (2) to lessen the danger of fetal damage (brain injury); (3) to produce an easier labor by lessening the pain, trauma and need for intervention; and (4) to reduce the danger of uterine rupture resulting from a failure of the cervix to dilate.

OBJECTIVES IN OUR STUDY

Since the majority of patients have normal labors, and since relaxin definitely produces cervical softening in the laboratory animal, we undertook a study to evaluate the drug in normal labor. We reasoned that if the drug had a definite action in normal labor, it should be possible to notice a gross alteration in a patient's course subsequent to its administration. The average woman can labor to 3 or 4 centimeters of dilation of the cervix without too much discomfort. It was hoped that relaxin given shortly prior to, or with, conventional medication for analgesia would produce a subsequently shorter, easier, safer and more comfortable labor for the mother. If these effects

Since doing the work described here, the authors have located in Madison, Wisconsin.

could be demonstrated, relaxin would be acclaimed as one of the greatest contributions to the management of normal labor and deliver in obstetrical history.

MATERIALS AND METHOD

We conducted a double-blind study in which an attempt was made to guess whether the patient had received the medication during labor. But first, we had to gain experience with the use of the drug in normal labors. Therefore, prior to the onset of the study, relaxin was administered to 12 patients in normal labor. No marked alteration in the subsequent course could be detected, but we thought that perhaps there was some degree of cervical softening and a slowing of the frequency and strength of uterine contractions.

Only normal patients with vertex presentations were selected for the study. All had term-sized babies, and all had had spontaneous onsets of labor. When a patient was in definite labor, as evidenced by progressive effacement and/or dilatation of the cervix, and when the cervix was 3 to 4 cm. dilated and at least 75 per cent effaced, she was given an intravenous infusion of 250 cc. of 5 per cent dextrose in water. Contractions at that point were occurring approximately every three minutes, and the patient was beginning to complain of discomfort. An ampule of relaxin containing 40 mg. (2 cc.) was then either added or not added to the intravenous infusion by a member of the intern or resident staff, the decision having been made by flipping a coin. The intravenous bottle was then covered with a paper bag so as to conceal any bubbles that might be present after the introduction of relaxin into the intravenous solution. The infusion was then brought into the labor room and started on the patient. It was run at such a rate as to take approximately 15 to 20 minutes for the introduction of the 250 cc.

We then personally noted the frequency and strength of contractions in an effort to determine which patients had received relaxin. All of the women were given 100 mg. of Demerol and 0.2 mg. of scopolamine, but in order to reduce the number of variants, no other medications were used in labor. An attempt was made to note the condition of the cervix at the onset of the infusion and to note any subsequent changes in dilatation and softening as labor progressed. The purpose of the study was not to note such minor variations in softening of the cervix as could be detected only on vaginal examination, but rather to note any gross changes in the overall picture, in the patient's discomfort and in the subsequent course of her labor. The observer made comments upon the work sheet, and either shortly prior to delivery or immediately afterward, made a statement as to whether or not he believed relaxin had been added to the infusion. He did not learn until later whether or not his answer had been correct. Fifty cases were used in the study.

RESULTS

In tabulating the results, we found that the relaxin cases had totaled 26 and the controls 24. Of the 26 patients who had received relaxin, 20 were multiparas and 6 were nulliparas. Of the 24 controls, 19 were multiparas and 5 were nulliparas.

TABLE 1
TOTAL CASES

	Number Receiving Relaxin	*Number of Controls*
Multiparas	20	19
Nulliparas	6	5
Totals	26	24

All patients were delivered spontaneously, except for three on whom outlet forceps were used on an elective basis. All of those three had been nulli-

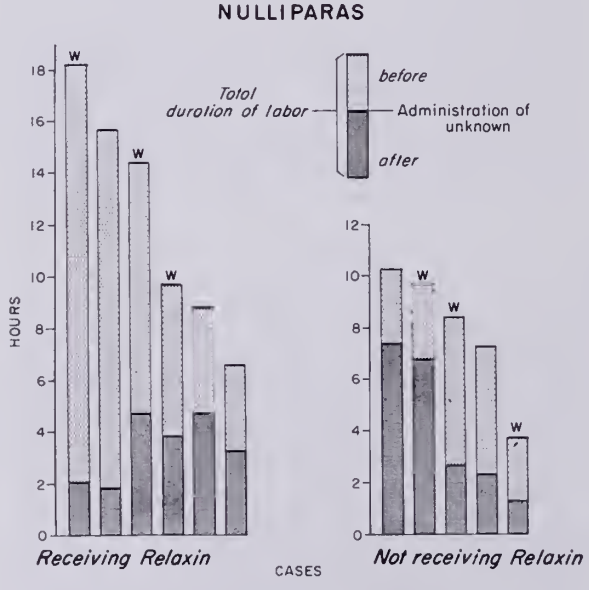


Figure 1. The columns marked "W" represent patients on whom the obstetrician guessed wrong.

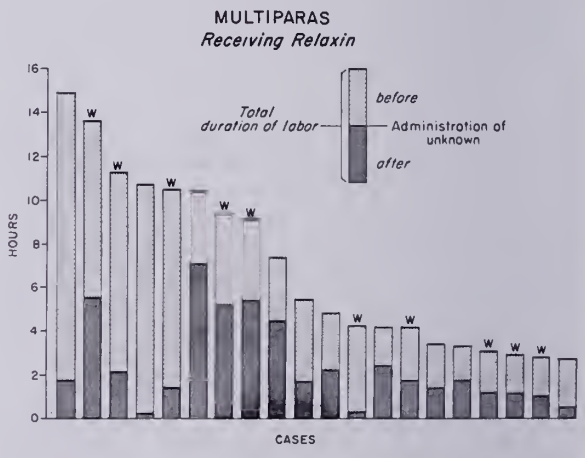


Figure 2. The columns marked "W" represent patients on whom the obstetrician guessed wrong.

paras, and one of the three had received relaxin. It is not believed that the use of outlet forceps appreciably altered the duration of labor in those three instances. All patients received a local anesthetic, with or without nitrous oxide.

During the course of labor following the administration of the unknown, it was difficult to note any appreciable alteration in the frequency and strength of contractions, and it was equally difficult to note any marked degree of softening of the cervix. It was not apparent that patients were made more comfortable by the medication. There was no alteration in blood pressure in the mothers, and none of the babies showed any evidence of asphyxia at the time of delivery.

Of the 26 cases in which relaxin had been administered, the obstetrician believed the patient had received it in 13 instances, but in the other 13 cases he could observe no alteration in the course of labor that led him to suspect that the medication had been administered. In 17 of the 24 cases where relaxin had not been given, the obstetrician was correct in stating that it had not been used.

The latter result might seem to indicate that we were somewhat more successful in noting the absence of the drug than in noting its presence. It must, however, be remembered that in the multiparas who received relaxin, its presence was guessed in 50 per cent of the cases, and theoretically, we could have been just as successful if we had flipped a coin in making our predictions. Figure 1 shows the results in the nulliparous patients with and without relaxin. There was no appreciable alteration in the total duration of labor or in the duration of labor following the administration of the relaxin. Figure 2 shows the duration of labor in the 20 multiparous patients who received relaxin during the course of labor.

When we compared our findings in the 20 multiparous patients who received relaxin with the 19 multiparas who did not (Figure 3), it was again apparent that there had been no appreciable alteration in the total duration of labor or in the subsequent course of labor following the administration of the drug.

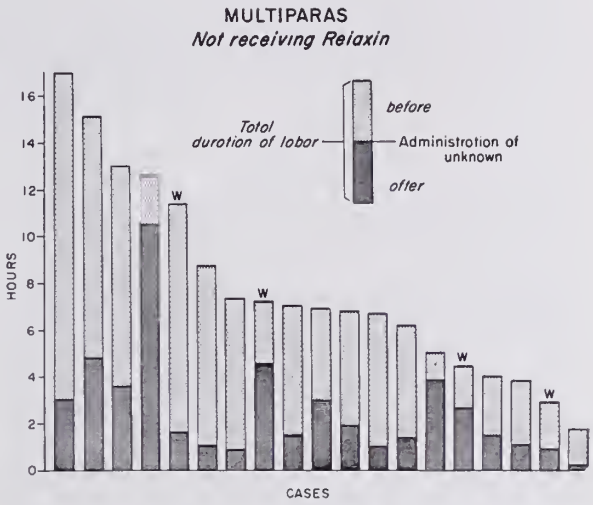


Figure 3. The columns marked "W" represent patients on whom the obstetrician guessed wrong.

SUMMARY AND CONCLUSION

A double-blind study has been conducted for the purpose of evaluating the intravenous administration of relaxin during the course of normal labor. A total of 50 cases were studied. Twenty-six women received relaxin, and 24 served as controls.

In the recommended dosage of 40 mg. of relaxin administered intravenously in the course of labor, there was no evidence of any toxicity, alteration of blood pressure, or asphyxia in the newborn babies.

There was no apparent effect upon the total duration of labor, upon the duration of labor subsequent to the administration of relaxin, upon the frequency or strength of uterine contractions, or gross evidence of cervical softening. It was not evident that the mothers were made significantly more comfortable.

Thus, it would appear that relaxin administered in 40 mg. doses during the course of normal, progressive labor has no apparent action that justifies its use.

REFERENCES

1. Hisaw, F. L.: Experimental relaxation of pubic ligament of guinea pig. Proc. Soc. Exper. Biol. & Med., **23**:661-663, (May) 1926.
2. Zarrow, M. X., Holmstrom, E. G., and Salhanick, H. A.: Concentration of relaxin in blood serum and other tissues of women during pregnancy. J. Clin. Endocrinol., **15**:22-27, (Jan.) 1955.
3. Birnberg, C. H., and Abitbol, M. M.: Refined relaxin and length of labor: preliminary report. Obst. & Gynec., **10**:366-370, (Oct.) 1957.

SYMPOSIUM ON DIABETES

The Chicago Diabetes Association will conduct its second annual Symposium on Diabetes Mellitus at the Drake Hotel, Chicago, on Monday, November 17.

Practicing physicians who are not members of the Chicago and the American Diabetes Associations will be charged a registration fee of $25.

The speakers will include Dr. Rachmiel Levine, of the University of Chicago; Dr. W. Stanley Hartroft, of Washington University, St. Louis; Dr. Stefan S. Fajans, of the University of Michigan; Dr. Arthur R. Colwell, of Northwestern University; Dr. Jack Metcoff, of Northwestern University; Dr. Henry T. Ricketts, of the University of Chicago; Drs. Ralph A. Reis, David Yi-Yung Hsia, and Joseph Skom, of Northwestern University; and Dr. Francis D. W. Lukens, of the University of Pennsylvania.

Inquiries should be addressed to the Chicago Diabetes Association, 5 South Wabash Avenue, Chicago 3.

Cerebrospinal Fluid Rhinorrhea

From a Temporal Bone Defect

THOMAS R. UPDEGRAFF, M.D.

WATERLOO

Cerebrospinal fluid rhinorrhea is a common occurrence, and it has been presented and reviewed many times in the literature.[1] It may occur spontaneously, or it can result from nasal surgery or from trauma of some other sort. The fluid is clear and waterlike, it flows continuously and it has a specific gravity of between 1.004 and 1.006. It has the ability to reduce Fehling's solution, but it does not ferment in yeast.

A review of the literature reveals that cerebrospinal fluid rhinorrhea resulting from a temporal bone defect and with an escape of fluid through the eustachian tube evidently is a rare phenomenon. Dandy[2] reported finding a case in 1944 of rhinorrhea following the removal of an acoustic nerve tumor and of assuming correctly that the cerebrospinal fluid had entered the eustachian tube. The unusual occurrence took place in one of my cases, and I feel that the extraordinary diagnostic problem that the patient presented and the manner in which the defect was closed will interest other practicing otologists.

REPORT OF CASE

Mrs. B. L., a 68-year-old white woman, was first brought to my attention, on consultation, January 27, 1955, because of partial deafness of the middle-ear type, on the right.

This woman had been in the hospital for several days under treatment for a meningitis. According to her history, she had been perfectly well until about two months before her admission, when she experienced a right earache. It cleared, but then recurred. The otitis media caused her suddenly to lose consciousness, and she fell, suffering a contusion of the right cheek when she struck the floor. She was admitted on the next day.

The physical examination performed and recorded by the referring physician revealed a well developed and well nourished white woman of 68 years, unconscious, having a rectal temperature of 103°F. The skull and chest x-rays were negative. A spinal fluid examination revealed 28 per cent sugar, 2,511 white blood cells and a positive culture for meningococcus.

The patient was given penicillin and achromycin therapy intramuscularly, and in two days she was coherent and able to recognize her relatives.

The ear, nose and throat examination performed on January 27 was negative, except for a serous otitis media and middle-ear deafness, right. A myringotomy was performed, and much serous exudate was removed by aspiration from the right tympanum. Because the patient had experienced a nasal discharge for about 10 days, sinus x-rays were obtained, but they were negative.

The following day, the patient's ear was dry, and her hearing had improved considerably. On February 2, she was discharged from the hospital in good condition.

Her subsequent progress was uneventful until the latter part of the following year, 1956, when she noticed a gradual loss of hearing in her right ear. Then, late in August, 1957, she noticed a watery discharge from the right side of her nose, especially when she leaned forward. There was no headache and no vertigo.

On examination, September 17, 1957, transillumination of her sinuses revealed no abnormality, and her nasopharynx, throat, larynx and left ear were normal. There seemed to be an abnormal "wetness" of the nose, particularly on the right side. The right ear appeared normal, the translucent drum membrane showing normal landmarks. The tympanum itself appeared fairly normal, and yet seemed filled with a clear, watery medium, instead of air. There was increased bone conduction over air with tuning forks (128, 526 and 1028 cps), and with lateralization to the right.

A right paracentesis was performed, and there was an immediate, profuse discharge of a clear, watery fluid. It continued to drain steadily. A specimen of this discharge was sent to the laboratory, and it was reported to be cerebrospinal fluid. X-ray examination of the base of the skull was negative, there being no evidence of fracture or erosion. Repeat sinus x-rays were also negative. Mastoid x-rays were read as showing obliteration of cell outlines in the central part of the mastoid to the external auditory canal, suggestive of a destructive process.

The patient was placed on Panmycin during the time required for the above described examination, and from the day the tympanum was opened (September 17) to the day of surgery (September 23), there was no decrease in the volume of fluid from the auditory canal. There was, however, a cessation of the nasal discharge. The patient experienced no discomfort such as headache or vertigo, but did complain of some weakness.

Because of the presence of a dural defect which was directly vulnerable to the first acute nasal infection and which apparently had been present for some time without any tendency toward closure, and because of the mastoid x-ray findings, an exploratory mastoidectomy was advised and carried out on September 23, 1957.

Through a Lempert endaural incision, a modified radical mastoidectomy was performed. The mastoid cells and antrum contained no pathology such as infection, granulation tissue, cholesteatoma or any other destructive process, but they were filled with cerebrospinal fluid. The dural plate and lateral sinus plate were both normally placed and intact. The tympanum was examined by elevating the drum membrane as in a stapedial mobilization procedure, but with the exception of cerebrospinal fluid, nothing abnormal could be found there.

By means of spot suction within the cavity, the source of the fluid was localized in a small cell tract between one and two millimeters in diameter extending under the facial canal about six millimeters distal to the point at which it passes the horizontal semicircular canal.

This cell tract was clean-walled and presented no evidence of any disease process whatsoever. It was followed as far into the petrous portion of the temporal bone as was possible without damage to the facial nerve, and afterward the lead was packed tightly with bone wax, and the wax in turn was overlaid with Gelfoam. The entire cavity was then covered thoroughly with a split-thickness skin graft and a previously-constructed flap from the posterior membranous canal wall. The whole was then held in place by means of half-inch Nu-gauze packing.

Postoperatively, the patient did quite well, and when the packing was removed on the fourth day, a healthy graft was revealed. She was discharged on September 29, 1957, in good condition, and to date there has been no further drainage of her cerebrospinal fluid. Audiometric studies performed on March 11, 1958, revealed an inner-ear deafness bilaterally (presbycusis), but with no variation between the two ears and no conductive-type loss (Figure 1).

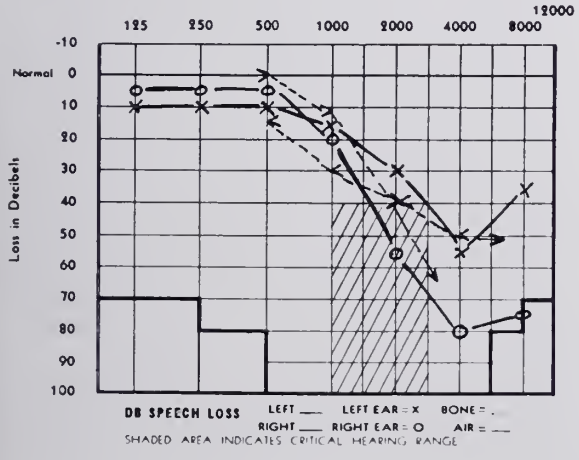


Figure 1

COMMENT

The fistula encountered in this patient apparently had been spontaneous in its occurrence, and it probably opened the door for the meningitis which developed following the initial attack of otitis media in January, 1955. Why the drainage stopped following the infection is also unexplained, but it probably was due to organization of exudate and fibrosis of the dura in the vicinity of the fistula. Evidently this closure was weak and held for only a few months, for a refilling of the tympanum and a recurrence of hearing loss took place during the latter part of 1956. The appearance of the mastoid x-rays is explained by the presence of fluid, completely filling the cells.

SUMMARY

1. Cerebrospinal fluid rhinorrhea from a temporal bone defect and escape of fluid through the eustachian tube constitute a rare occurrence.

2. A case presentation has shown the history, symptoms, physical findings and method of repair of a defect in the petrous portion of the temporal bone.

REFERENCES

1. Hirsch, O.: Successful closure of cerebrospinal fluid rhinorrhea by endonasal surgery. AMA Arch. Otolaryng., 56:1-12, (July) 1952.

2. Dandy, W. E.: Treatment of rhinorrhea and otorrhea. Arch. Surg., 49:75-85, (Aug.) 1944.

VOTE

in the

GENERAL ELECTION

November 4

Clinical Pathologic Conference

SUMMARY OF CLINICAL FINDINGS

A 24-year-old white farm worker who had sustained a compound comminuted fracture of the left patella on July 7, 1956, was admitted to the Orthopedic Service on October 7, 1957. The knee joint had become infected following debridement, and recovery had been attended by a 70-degree flexion deformity and a generalized urticarial reaction following penicillin. At the time of admission, there were no complaints other than those related to the knee.

Prior to his emigration from Germany in 1954, the patient had been told that he had a "bad heart." He was rejected from military service in 1954 because of hypertension, but his doctor did not recommend treatment. There were no symptoms or history of cardiovascular disease or rheumatic fever. He had had pneumonia in 1951 and diphtheria in childhood, but his recoveries from those illnesses had been uneventful.

On admission, the patient appeared to be in good general health. He walked with the aid of a crutch. The blood pressure was 180/80 mm. Hg., and the optic fundi appeared to be normal. The lungs were normal. The heart was enlarged, with the apical impulse in the fifth left intercostal space on the anterior axillary line. The aortic and pulmonic closure sounds were equal in intensity. A grade II blowing systolic murmur was heard best at the apex and in the neck. The heart rate was 76 per minute, and the rhythm was regular. No abnormalities were noted in the abdomen. A 70-degree flexion deformity of the left knee was present.

The hemoglobin was 13.0 Gm./100 ml., the red blood cell count was 4,200,000/cu. mm., and the white blood cell count was 7,700/cu. mm. The urinalysis was normal. X-ray films of the left knee showed an old healed fracture of the right tibial plateau, traumatic arthritis and some fibrous union of the joint.

On October 10, 1957, an arthroplasty of the left knee was performed, and a tibial plateau prosthesis was inserted. Penicillin and streptomycin were given postoperatively, but were discontinued on the following day when Chloromycetin was ordered in a dose of 0.5 Gm., q.i.d. On October 23, 1957, the knee was aspirated, and 70 ml. of old blood was removed. This material was cultured, but no growth was obtained. Straight leg raising exercises were begun on November 4, 1957, with slow progress. Ambulation on crutches was begun late in November.

On December 1, 1957, the patient noted the onset of a rather severe and sharp, but diffuse, anterior chest pain. There was no elevation of the body temperature. The pain was intermittent, and made worse by inspiration. There was no radiation of the pain, and no orthopnea or dyspnea. The patient became nauseated and vomited that evening, and later coughed up two teaspoonfuls of dark blood. The Chloromycetin was reduced to 250 mg., q.i.d., on December 2, 1957, following manipulation of the left knee under cyclopropane anesthesia.

Examination the next day revealed a blood pressure of 100/70 mm. Hg., and a pulse rate of 104 beats per minute. The skin was cold, pale and sweating, and the fingernail beds were cyanotic. The lungs were normal. The left cardiac border of dullness was on the anterior axillary line. A diastolic gallop rhythm was present, and a friction rub was heard to the left of the sternum. A second examiner recorded a presystolic apical murmur, heard best when the patient was in the left lateral position. The hemoglobin was 13.0 Gm./100 ml., the red blood cell count was 4,500,000/cu. mm., and the white blood cell count was 10,350/cu. mm. A urinalysis was negative, and the erythrocyte sedimentation rate was 12 mm. in one hour. The prothrombin time was 18.3 seconds, with a control of 13.6 seconds. The electrocardiogram was interpreted as "abnormal." The RS-T segments were elevated in leads V_2 through V_5. There was an RSR′ complex in V_1 and a late S-wave in V_6. T-waves were deeply inverted in leads V_1 through V_4, and diphasic in V_5 and V_6.

On December 12, 1957, signs of consolidation were noted over the left lower lobe, and fine, moist rales were heard in both lung bases. The body temperature remained normal. The pharynx was slightly injected. The left border of the heart was on the anterior axillary line. No paradoxical pulse was noted. The pulmonic closure sound was of greater intensity than the aortic closure sound. The general appearance of the patient was similar to that of the previous day. The hemoglobin was 13.6 Gm./100 ml. The white blood cell count was 9,850/cu. mm., with 78 segmented neutrophils, 2 eosinophils, 1 basophil, 17 lymphocytes and 4 monocytes. The erthrocyte sedimentation rate was 9 mm. in one hour. A throat culture showed normal flora and a moderate amount of hemolytic Staphylococcus aureus. Serologic tests for syphilis and infectious mononucleosis were negative. An antistreptolysin "O" titer was 320 units/ml. The adenovirus titer was less than 1:4 (negative), and the Asian influenza titer was 1:6

(low). A lupus erythematosus preparation was negative. The Chloromycetin was discontinued, and the patient was treated with nasal oxygen, digitoxin, Mercuhydrin and prednisone on the basis of a presumptive diagnosis of toxic or allergic myocarditis, with heart failure.

On December 5, 1957, the patient appeared much the same as on the day before. The pulmonary rales were gone, but the dullness in the left base persisted. The mid-diastolic gallop sound remained. No friction rub or paradoxical pulse was noted. The electrocardiogram was unchanged from that of December 3. A portable film of the chest revealed an area of pneumonitis in the left base.

On December 6, 1957, at 8:30 a.m., there was no venous distention and no rales were heard. At 10:30 a.m., the patient became nauseated, the blood pressure fell and there was hemoptysis of about two teaspoonfuls of bright red blood. At 3:35 p.m., the patient was received on the Medical Service. The lungs were still clear. The blood pressure was 75/50 mm. Hg., and the pulse rate was 180 beats per minute. The heart sounds were distant. The skin was sweating and cyanotic. The liver edge was felt four fingerbreadths below the right costal margin. Gasping commenced, and the patient died before vasopressor drugs could be started.

SUMMARY OF CLINICAL DISCUSSION

Dr. R. F. Sheets, Internal Medicine: This 24-year-old man was admitted for repair of a flexion deformity that followed a fracture of the knee. It was noted that he had had a reaction to penicillin previously, and that he had been told he had a bad heart and high blood pressure.

On his admission here, the first noteworthy finding was that his blood pressure was 180/80 mm. Hg. One should recall that the first blood pressure taken following a patient's admission to the hospital is usually somewhat higher than normal, and that if it is taken again the next day or some time later, it usually is lower. Nevertheless, I think 180/80 in a 24-year-old man is unusual.

In addition, it was noted that the heart was enlarged. The apical impulse was in the fifth left intercostal space on the anterior axillary line. His heart was large, and it had the configuration, at least on the basis of this examination, of one which is pumping against increased pressure. In other words, there seemed to be something obstructing the flow of blood and enlarging the left ventricle. But the murmurs didn't necessarily support such a theory. The blowing systolic murmur heard at the apex was only grade II, and I am not sure how one should interpret the sounds that were heard in the neck. It seems to me that one couldn't expect to hear a grade II murmur there, for it wouldn't be loud enough to be transmitted so far. Thus, if we are to understand that a murmur was heard in the neck, I think that it must have been another one. At this point, I want to know more about this man's cardiovascular system, and that information should have been gathered at the time of his initial examination.

The first thing that most examiners think of when they obtain a blood pressure of this magnitude in a young man is coarctation of the aorta. And it is very easy to find out whether or not that condition is present by feeling the femoral arteries, or if one still is in doubt, by taking the blood pressure in the legs. But latter sections of the protocol neither add nor subtract from the data contained in the opening paragraphs. The blood pressures obtained later were all taken at times when one would expect hypotension, even though hypertension had been present previously.

An arthroplasty of the knee was performed, and the patient was given penicillin. A day or so later, he was started on Chloromycetin. The operation was performed on October 10, 1957, and it was late in November when the patient became ambulatory. This may be an important point to remember.

On December 1, the patient had diffuse anterior chest pain which was intermittent in character and was made worse by inspiration. At that time, he coughed up two teaspoonfuls of dark blood. On the next day, the knee was manipulated under anesthesia, and on the following day he was examined. The blood pressure was then 100/70. There was tachycardia. The skin was cold and pale. The patient was sweating, and there was cyanosis of his nail beds. All of these symptoms, I think, are compatible with shock following a pulmonary embolus. There were also a diastolic gallop rhythm and a friction rub. The protocol doesn't state whether the friction rub was pleural, pericardial or a combination of the two.

Following this episode, another examiner found a presystolic apical murmur when the patient was in the left lateral position. This confuses me. I don't know what to make of it. If this were truly a presystolic murmur heard at the apex, there would be little doubt that the patient had mitral stenosis. But I think that before we can put much credence upon this observation, we should realize that an examiner who heard this type of murmur would also have noted that there was an increase in the second pulmonary sound and that Ml was increased in intensity, and surely would make a note concerning overactivity of the right ventricle. Thus, I shall discard this observation as invalid.

An electrocardiogram was taken at about this time. The RS-R′ complex in V_1 and late S-wave in V_6 were compatible with right bundle branch block. Two days later, another examination of the patient was recorded. Fine rales were heard over both lung bases. The temperature was normal. It was noted that the pulmonic closure sound was of greater intensity than the aortic closure sound. Since a previous passage in the protocol

describes the sounds as having been of equal intensity, this seems to represent a change. This sign is compatible with a pulmonary embolus and denotes an increase in the pulmonary pressure.

On December 5 the patient appeared about the same as he had previously. Another electrocardiogram was taken, and it showed essentially the same findings as the first one. If the abnormalities on the initial electrocardiogram had been due to the pulmonary embolus that produced an abrupt change in the pulmonary pressure, one would expect to find that it had reverted to a normal pattern within a fairly short time. The fact that the pattern appeared the same two days later may be significant. At this time, too, an x-ray of the chest was taken.

Dr. Carl L. Gillies, Radiology: When the patient entered the hospital, the first films taken were of his left knee. Those demonstrated that the patella had been removed following the original injury. There was also an old, healed compression fracture of the medial condyle of the tibia, with a flexion of the knee. A second set of films demonstrated a plate arthroplasty, with the plate placed over the condyle of the tibia and a reshaping of the lower end of the femur.

The film of the patient's chest was taken with portable apparatus on December 4, two days before his death. It demonstrated enlargement of the heart and prominent pulmonary vascular markings, fairly uniformly distributed throughout. There was no consolidation within either lung.

Dr. Sheets: So the patient's heart was big. There were no notches in the ribs, so the x-ray examination will not substantiate coarctation of the aorta, though it doesn't necessarily eliminate it.

On December 6, the patient coughed up bright red blood. Again he went into shock, and died a short time later.

As I put this story together, this patient died of pulmonary emboli, probably from his leg. I suspect that after the emboli hit the lungs, they grew by thrombosis *in situ* to produce acute cor pulmonale and congestive heart failure. This theory doesn't explain all of the findings. It doesn't explain the initial hypertension or the previous history of hypertension. It doesn't explain the large left ventricle that was observed on x-ray, and it doesn't explain the prominent pulmonary vasculature.

One of the things that I thought might be a part of this picture was patent ductus arteriosus. But there are many contraindications, such as the absence of a typical murmur. Although this patient wasn't in cardiac failure initially, he didn't have the continuous murmur to the left of the sternum that should have been present unless there was a reversal of flow through the patent ductus arteriosus. Thus, I don't think that patent ductus would be a good explanation.

An interatrial septal defect is a possibility, and though I don't think it is a likely one, I don't know how to eliminate it or to be certain of it at this point. Another possibility might be idiopathic hypertrophy of the heart as it occurs occasionally in young people, for no known reason.

Also, one should think of subacute bacterial endocarditis in a patient who has heart disease, but I don't think that it is legitimate to consider it very strongly in this patient on the basis of the information we have at hand. There was no fever, anemia, splenomegaly or the other things which are usually associated with this disease, even when it has been of this short duration.

CLINICAL DIAGNOSIS

Acute myocarditis.

DR. RAYMOND SHEETS' DIAGNOSIS

Phlebothrombosis of the leg, with pulmonary emboli, acute cor pulmonale and congestive heart failure.

ANATOMICAL DIAGNOSES

1. Adenocarcinoma of sigmoid colon, poorly differentiated, with extensive metastasis to lymph nodes and lungs
2. Focal acute myocarditis
3. Myocardial hypertrophy and dilatation
4. Visceral congestion
5. Meckel's diverticulum, ileum.

Dr. Frederic W. Stamler, Pathology: Dr. Sheets' conclusions in regard to this patient are correct up to a point. This man did have very extensive pulmonary embolization. It wasn't pulmonary embolism in the ordinary sense, however, but an instance of widespread tumor embolism.

The primary tumor, which had been completely silent clinically, was an adenocarcinoma of the sigmoid colon, and grossly it was a rather insignificant-appearing lesion. It was papillomatous, without the obvious ulceration and other changes ordinarily seen with a malignant lesion of this organ. Microscopically, it was demonstrated to be a very anaplastic type of carcinoma, with very extensive lymphatic permeation, considerable involvement of the mesenteric and other abdominal nodes, very extensive involvement of the intrathoracic lymph nodes and extremely widespread tumor embolization of the pulmonary arterial system. These emboli involved the small vessels. There was no evidence of massive emboli occluding any of the large vessels, but the majority of the small radicles of the pulmonary system were involved in this process. Many of them contained viable tumor cells, but others were completely scarred out by organizing thrombi which accompanied many of the tumor emboli, and others showed varying degrees of fibroplasia and neoplastic growth in the vessels.

In addition, there was extensive invasion beyond

the vascular system, with particularly prominent perivascular lymphatic permeation in the pulmonary system. In my opinion, that correlated well with the x-ray picture of increased vascular markings in the lungs, and it was also noted grossly that the vessels stood out in the lungs—very distinctly, indeed, for they were rimmed by zones of pale gray tumor tissue. Associated with this, there was cardiac hypertrophy and dilatation, as had been indicated in the clinical data and x-ray findings. This was not confined to the right ventricle, and consequently was not the pure cor pulmonale that one might anticipate as the result of obstruction of the pulmonary arterial system. Instead, there was a symmetrical hypertrophy of the entire heart—if anything, more prominent on the left side.

This left-sided hypertrophy was not particularly easy to explain in the light of other findings in this case. There was no associated vascular disease or renal difficulty that would explain a more prolonged hypertension, with resulting left ventricular hypertrophy. One finding which may possibly have had a bearing was the presence of large masses of matted lymph nodes surrounding and possibly partially compressing the aortic arch, so that we might postulate that some of the increased work load of the left ventricle had been due to the fact that this process interfered with aortic function.

There were no valvular lesions or evidence of endocarditis. There was, however, a focal myocarditis, though it was, I think, of minor significance. There were a few foci of rather acute interstitial myocarditis, but in the total picture they were so few and so small that I believe myocarditis was not a significant factor in the cardiac failure.

In summing up the cardiac findings, I should say that we have hypertrophy, which probably antedated the terminal phase of the illness, and correlating with the onset of the severe symptoms of failure, we have the findings of extensive pulmonary embolization by tumor, with the accompanying thrombosis and occlusion. The thrombosis and occlusion explain the terminal right-sided failure which occurred. In addition, there was a minor degree of acute myocarditis.

Mr. Robert Hansen, student: First, what was the appearance of the adrenals at autopsy, and second, did any of the examiners recover blood in the stools?

Dr. Paul M. Seebohm, Internal Medicine: On the laboratory sheet, there is no comment about the stool. There is a comprehensive student's workup here, but it contains no note about a rectal examination. When the medical consultant saw the patient, he didn't do a rectal examination because of the patient's acute respiratory distress. Thus, I think we must conclude that the rectal examination was done neither before the elective surgery nor after the patient had developed acute respiratory and cardiovascular difficulty.

Dr. Michael Bonfiglio, Orthopedic Surgery: The junior student didn't do a rectal in his workup on this patient, either. I mention this fact because his writeup is not in the report.

Dr. J. A. Gius, Surgery: What does the gastrointestinal history say?

Dr. Seebohm: It says, ". . . appetite good, no weight loss in recent months, normal bowel habits."

Dr. Sheets: Was a second blood pressure taken at any time before the patient died?

Dr. Seebohm: No, there is only one blood pressure in the record. Do you know of any other, Dr. Bonfiglio?

Dr. Bonfiglio: No, only the preoperative reading.

Dr. Seebohm: It is reported as 120/80 on the anesthesia record.

Dr. Sheets: That isn't usually valid, for the patient has had preoperative sedation by the time it is taken. Did this patient have premedication?

Dr. Seebohm: Yes, he had morphine, scopolamine and nembutal.

Dr. Stamler: The adrenals were normal as far as could be determined.

One or two other comments might be made in regard to the rectal examination and the examination of the stool for blood. The exact distance of the tumor above the anus hasn't been recorded, but it was in the sigmoid colon, and I believe it would not have been palpable by digital examination of the rectum. Furthermore, it was not the usual type of carcinoma. There was no visible bleeding, ulceration or necrosis of the lesion, and thus the chances of occult blood in the stool would be considerably less than in the usual case.

Dr. Gius: How much was it blocking the lumen?

Dr. Stamler: It was not blocking the lumen. There was no constriction. This was purely a papillary lesion with very little involvement beyond the submucosa. The outer wall was essentially normal, and there was no blockage of the lumen.

Dr. R. C. Hickey, Surgery: Dr. Stamler has commented on the hematogenous spread of the neoplasm to the lungs, without spread elsewhere. I am thinking particularly of the liver. Also, at the time the first two histologic sections were demonstrated, there was no definite invasion of the veins leading from the colon. Would Dr. Stamler comment further on this unusual pattern of cancer dissemination?

Dr. Stamler: When I first examined the sections, I thought that there was blood vascular invasion in the lesion locally, but later I decided that it probably was not blood vascular invasion, but was confined to the lymphatics, and that probably all the spread had occurred through the lymphatic system. There were involvements of mesenteric lymph nodes, periaortic nodes and--massively—of the intrathoracic lymph nodes, as well as very extensive interpulmonary metastases, but no other

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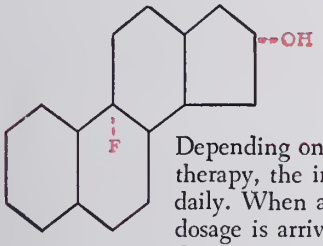
1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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metastases were found. The liver was entirely negative in that regard.

Dr. Hickey: Isn't that most unusual for carcinoma of the colon?

Dr. Stamler: Yes, first of all a carcinoma of the colon is very unusual in a patient of this age, although one of the first such lesions with which I had any connection was in a young man of 21 years of age. Histologically, however, that earlier case was a more conventional type of carcinoma.

I had never seen another lesion quite like this one in gross characteristics. Grossly, the lesion was very insignificant, and at first we didn't think it was a malignancy. Only on microscopic examination did we recognize it as a carcinoma.

Dr. J. E. Eckstein, Internal Medicine: Is there any good explanation for the suddenness of the onset of symptoms? The patient must have had many pulmonary emboli and thromboses long before he became so suddenly and seriously ill.

Why did he suddenly become acutely ill from this neoplastic process while convalescing from surgery?

Dr. Stamler: That is a circumstance which isn't too easily explained. It could have been anticipated if he had had evidence of a more chronic type of cor pulmonale. The best answer I can give is in line with the statement I read recently that up to about 50 per cent of the pulmonary circulation can be occluded without seriously interfering with right-sided heart function. Perhaps the heart and the pulmonary circulation in this patient were well compensated up to the time of his convalescence from surgery in this hospital, but with the increasingly rapid growth of the tumor in the late stages, the 50 per cent limit was rather rapidly exceeded, and it was then that cardiac failure ensued.

Dr. Sheets: I should like to emphasize once again that a patient's blood pressure on admission is usually high and that it is a good idea to take it again after he has become accustomed to the hospital and the strangeness of the place has worn off. The anesthesia record in this case wasn't helpful, for the patient had been premedicated and a normal reading could have been a response to nembutal or to the other drugs.

Dr. Stamler, is the cardiac picture in this case compatible anatomically with idiopathic hypertrophy of the heart?

Dr. Stamler: I cannot say whether it is or not. I have no adequate explanation for the left-sided hypertrophy. It might be considered idiopathic, but it certainly lacked many of the features of the cases to which we are accustomed to apply that term clinically. If the patient had lived, he might have gone on to develop the complete clinical picture of idiopathic hypertrophy. I don't know. All I can say is that there was left ventricular hypertrophy of unknown etiology.

Dr. I. A. Rankin, Iowa City: I wonder whether the rapid extension of this patient's metastases and his rapidly worsening general condition could have been related in any way to his having been given penicillin on October 10, following a history of a severe anaphylactic reaction to that antibiotic.

Dr. Seebohm: I think that the type of reactions we see with penicillin are either anaphylactic in nature and prompt in occurrence, or are of the serum-sickness type. If this man had the serum-sickness type, he didn't exhibit the usual signs—namely urticaria and joint involvement.

Dr. Rankin: Was there any reason for giving penicillin in spite of the patient's history?

Dr. Seebohm: I suspect that the attending physicians failed to note that he had had a previous reaction to it.

Dr. Bonfiglio: The reason for giving antibiotics at all was that the patient had an infected knee, and when it was operated upon, the patient had to be covered in anticipation of a flare-up.

Dr. Gius: This case serves very well to point up the classic remark made by von Mikulicz late in the nineteenth century: "There are no symptoms of cancer; there are only symptoms of the complications of cancer."

The symptoms and signs which we associate with neoplastic disease in any area are due to changes which cancer has produced. In the colon, there may be blood in the stool due to ulceration, changes in bowel function due to blockage or interference with the passage of fecal material or gas, pain from distention, inflammation, nerve involvement or metastases.

Usually, the tumor grows relatively slowly, and symptoms appear after a latent period of several months. In this patient, however, there were no symptoms pointing to the colon. Unless routine studies of the colon were done on every patient, such tumors would remain undiscovered, and since it is impractical to make such examinations routine, we must maintain a high level of suspicion regarding cancer of the colon, especially in patients in middle life and beyond.

The concept which I have just outlined is pointed up by the following experience. A 73-year-old man was recently transferred to the Surgical Service for repair of a right inguinal hernia. In September, 1957, he had been hospitalized here for a hip-pinning procedure, and on his return for a follow-up visit, he had complained of the hernia, saying he had had recurrent pain when the hernia came out. There had been no change in his bowel habits, and there was no blood in the stool or any other findings. Plans were made to repair the hernia.

But one of the residents thought it unlikely that a man of this patient's age should have serious trouble with a hernia that had been present for many years, and decided to secure a barium enema. Lo and behold, there was a partially obstructing carcinoma of the sigmoid that was pro-

ducing the symptoms which previously had been attributed to hernia. Thus, the patient was very nearly subjected to an unnecessary operation, and the more serious condition was very nearly overlooked.

At the present time there is a patient on Ward C-54 who was referred for hernia repair, but who has a carcinoma of the colon. And in a conference of this sort within the past year, a young woman was presented with colonic perforation and peritonitis that was thought to be due to appendicitis but which was found at autopsy to be due to carcinoma of the distal transverse colon.

In other words, silent, occult or masquerading cancer of the colon is common, and it will be missed unless we make it a practice to think of it even in the absence of symptoms.

Dr. Seebohm: I suppose that the basic lesson to be learned from this case is that even a complete examination may not be complete enough.

Coming Meetings

In State

Nov. 13	**Iowa Dietetic Association.** Hotel Savery, Des Moines
Nov. 14-15	**Seminar on Spasticity and Physical Therapy (Iowa Chapter, American Physical Therapy Assn.).** University Hospitals, Iowa City
Nov. 21-22	**Clinical Physical Medicine and Athletic Injuries (Department of Orthopedics, Division of Physical Medicine, and the Iowa Chapter of Arthritis and Rheumatism foundation).** University Hospitals, Iowa City
Dec. 6-7	**First Iowa Industrial Health Conference.** Savery Hotel, Des Moines
Dec. 9-11	**Surgery.** University Hospitals, Iowa City

Out of State

Nov. 1	**Professional Symposium (Santa Barbara County Heart Association).** Biltmore Hotel, Santa Barbara
Nov. 1-5	**College of American Pathologists.** Congress Hotel, Chicago
Nov. 2-8	**American Society of Clinical Pathologists.** Congress Hotel, Chicago
Nov. 2-8	**Sixth Inter-American Congress of Radiology.** Lima, Peru
Nov. 3-5	**Arthritis and Rheumatoid Disease.** U. of California, San Francisco
Nov. 3-5	**Gallbladder Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 3-5	**Symposium in Obstetrics.** U. of Kansas School of Medicine, Kansas City, Kansas
Nov. 3-6	**Twenty-sixth Annual Scientific Sessions, Omaha Midwest Clinical Society.** Sheraton-Fontenelle Hotel, Omaha
Nov. 3-6	**Southern Medical Association.** New Orleans
Nov. 3-7	**Pediatric Radiology for Radiologists.** U. of Minnesota, Minneapolis
Nov. 3-7	**Selected Subjects in Internal Medicine (American College of Physicians).** Mayo Clinic, Rochester, Minnesota
Nov. 3-14	**Clinical and Didactic Course in Dermatology.** Cook County Graduate School of Medicine, Chicago
Nov. 3-14	**Gastroscopy and Gastroenterology.** Cook County Graduate School of Medicine, Chicago
Nov. 4-6	**New England Postgraduate Assembly.** Statler Hotel, Boston
Nov. 4-7	**American Society of Tropical Medicine and Hygiene.** Hotel Deauville, Miami Beach
Nov. 5-8	**Annual Meeting, American Society of Tropical Medicine & Hygiene.** Miami Beach
Nov. 6	**Forum on Vital Problems in Medical Economics (Erie County Medical Society in cooperation with The Wm. S. Merrell Company).** Hotel Statler-Hilton, Buffalo
Nov. 6-7	**Lead Hygiene Conference (Lead Industries Association).** Drake Hotel, Chicago
Nov. 6-8	**General Practice.** U. of Wisconsin Medical School, Madison
Nov. 6-8	**Eleventh Annual Scientific Meeting, Gerontological Society, Inc.** Bellevue Stratford Hotel, Philadelphia
Nov. 6-8	**Surgery of Hernia.** Cook County Graduate School of Medicine, Chicago
Nov. 7	**Symposium on Sexual Problems as Seen in General Practice.** U. of Southern California, Los Angeles
Nov. 7	**Urology.** U. of California, San Francisco
Nov. 8	**Proctology.** U. of California, San Francisco
Nov. 8-9	**Annual Meeting, California School Health Association.** Hacienda Hotel, Fresno
Nov. 8-9	**Ninth Annual County Medical Societies Civil Defense Conference (AMA Countil on National Defense).** Morrison Hotel, Chicago
Nov. 8-9	**Removal of Foreign Bodies From Lung and Bronchi.** U.C.L.A., Los Angeles
Nov. 10-13	**Forty-third International Scientific Assembly, Interstate Postgraduate Medical Association.** Auditorium and Hotel Statler, Cleveland
Nov. 10-13	**Symposium in Internal Medicine.** U. of Kansas School of Medicine, Kansas City, Kansas
Nov. 10-14	**Gastroenterology (American College of Physicians).** University Hospital, Ann Arbor
Nov. 10-15	**Diseases of the Chest (Council on Postgraduate Medical Education of the American College of Chest Physicians).** Park-Sheraton Hotel, New York City
Nov. 10-21	**American Board Review Course in Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 10-21	**General Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 10-21	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Nov. 12-13	**Michigan Academy of General Practice.** Sheraton-Cadillac Hotel, Detroit
Nov. 12-15	**Second Oklahoma Colloquy on Advances in Medicine, Arthritis and Related Disorders (Department of Medicine, U. of Oklahoma, Division of Postgraduate Education, Geigy Pharmaceuticals, Wyeth Laboratories, Upjohn Co., Pfizer Laboratories and Schering Corp.).** U. of Oklahoma, Oklahoma City
Nov. 13	**Plastic Surgery.** U. of California, San Francisco
Nov. 13-15	**Inter-Society Cytology Council.** Hotel Statler, New York City
Nov. 14	**Hand Surgery.** U. of California, San Francisco
Nov. 14-15	**Minor Surgery.** U.C.L.A., Los Angeles
Nov. 15	**New Look in Speech Problems.** U. of California, San Francisco
Nov. 16-18	**International College of Surgeons, Mid-Atlantic Sectional Meeting.** The Homestead, Hot Springs, Virginia
Nov. 16-20	**National Society for Crippled Children and Adults.** Statler Hilton Hotel, Dallas
Nov. 16-21	**Radiological Society of North America.** Palmer House, Chicago
Nov. 17	**Second Annual Symposium on Diabetes, Chicago Diabetes Association.** Drake Hotel, Chicago
Nov. 17-18	**International College of Surgeons, Mid-Atlantic Regional Meeting.** The Homestead, Hot Springs, Va.

Nov. 17-18	**Symposium on Fractures.** U. of Kansas School of Medicine, Kansas City, Kansas
Nov. 17-19	**Association of Military Surgeons of the U. S.** Hotel Statler, Washington, D. C.
Nov. 17-19	**Fractures for General Physicians.** U. of Minnesota, Minneapolis
Nov. 17-21	**Ophthalmic Plastic Surgery (for Specialists)** N.Y.U., N.Y.C.
Nov. 17-21	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Nov. 17-22	**Congenital Heart Disease (American College of Physicians).** The Johns Hopkins Hospital, Baltimore
Nov. 17-22	**Neurology and Neurosurgery for General Physicians.** U. of Minnesota, Minneapolis
Nov. 18-20	**National Conference on Air Pollution (U.S.P.H.S.).** Sheraton-Park Hotel, Washington, D. C.
Nov. 18-22	**Puerto Rico Medical Association.** Santuree, Puerto Rico
Nov. 19	**Physical and Clinical Aspects of the Endocrine System.** U.C.L.A., Los Angeles
Nov. 19	**Surgery, Ano Rectal Diseases and Their Management.** U. of Oklahoma Medical Center, Oklahoma City
Nov. 19-20	**A. Morris Ginsberg Memorial Seminar on Recent Advances in Internal Medicine (In cooperation with the U. of Kansas School of Medicine).** Menorah Medical Center, Kansas City, Missouri
Nov. 19-21	**Eleventh Annual Session, Conference on Electrical Techniques in Medicine and Biology.** Nicollet Hotel, Minneapolis
Nov. 20	**Annual Scientific Session, American Society of Anesthesiologists.** Palmer House, Chicago
Nov. 20-21	**International Colloquium on Resistant Infections (United States Committee, World Medical Association and Eaton Laboratories. Norwich, New York).** Plaza Hotel, New York City
Nov. 20-22	**American Association of Blood Banks.** Netherland Plaza Hotel, Cincinnati
Nov. 20-22	**American College of Cardiology, Interim Meeting.** Jung Hotel, New Orleans
Nov. 20-22	**Obstetrics and Gynecology.** U.C.L.A., Los Angeles
Nov. 20-22	**Physical Medicine for Specialists.** U. of Minnesota, Minneapolis
Nov. 20-22	**Symposium on the Status of Tuberculosis as a Public Danger (Deborah Tuberculosis Sanatorium and Hospital of Brown Mills, New Jersey).** Bellevue-Stratford Hotel, Philadelphia
Nov. 20-22	**Western Surgical Association, Annual Meeting.** Kahler Hotel, Rochester, Minnesota
Nov. 21-22	**Allied Health Course in X-Ray Technology.** U. of Kansas School of Medicine, Kansas City, Kansas
Nov. 21-22	**Fifth Annual Conference, Mental Health Representatives of the State Medical Associations (AMA Council on Mental Health).** Drake Hotel, Chicago
Nov. 21-22	**Obstetrics and Gynecology.** U.C.L.A., Los Angeles
Nov. 24-25	**Allied Health Course in Cardiovascular Disease Nursing.** U. of Kansas School of Medicine, Kansas City, Kansas
Nov. 28-Dec. 18	**Bahamas Medical Conference.** British Colonial Hotel, Nassau, Bahamas
Dec. 1-5	**Surgery of Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Dec. 1-5	**Surgery of the Cornea.** N.Y.U., N.Y.C.
Dec. 1-12	**Diagnostic X-Ray.** Cook County Graduate School of Medicine, Chicago
Dec. 1-12	**Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Dec. 1-12	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Dec. 2-5	**American Medical Association, Clinical Meeting.** Hotel Leamington, Minneapolis
Dec. 3	**Physiological and Clinical Consideration on the Endocrine System.** U.C.L.A., Los Angeles
Dec. 3-6	**Ophthalmology, External Diseases.** U. of California, San Francisco
Dec. 4	**Psychiatry and Neurology.** U. of Nebraska College of Medicine, Omaha
Dec. 5-6	**Peripheral Vascular Disease.** U.C.L.A., Los Angeles
Dec. 6-7	**Mid-West Forum on Allergy.** Sheraton-Cadillac Hotel, Detroit
Dec. 6-11	**American Academy of Dermatology and Syphilology.** Palmer House, Chicago
Dec. 7-9	**Disturbances in Gastrointestinal Motility.** U. of California, San Francisco
Dec. 9-11	**Southern Surgical Association.** Boca Raton Club and Hotel, Boca Raton, Florida
Dec. 10	**The Selection of Patients for Cardiovascular Surgery.** U. of Oklahoma Medical Center, Oklahoma City
Dec. 12-13	**Association for Research in Nervous and Mental Diseases.** Hotel Roosevelt, New York City
Dec. 12-13	**Fractures.** U.C.LA., Los Angeles
Dec. 12-13	**Symposium on Glaucoma.** U. of Kansas School of Medicine, Kansas City, Kansas
Dec. 12-13	**Vascular Surgery.** U.C.L.A., Los Angeles
Dec. 15-16	**Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Dec. 17	**Physiological and Clinical Aspects of the Gastrointestinal Tract.** U.C.L.A., Los Angeles
Dec. 19-20	**Athletic Injuries.** U.C.L.A., Los Angeles
Dec. 29-Jan. 17	**Bahamas Surgical Conference.** British Colonial Hotel, Nassau, Bahamas

AMA CLINICAL MEETING IN MINNEAPOLIS

More than 3,000 physicians are expected to attend the American Medical Association's Twelfth Clinical Meeting, in Minneapolis, December 2-5. The scientific program has been designed to help the family physician with his daily practice problems.

The scientific portion of the program will be held in the Minneapolis Auditorium, and the sessions of the AMA House of Delegates will be held at the Leamington Hotel, the headquarters for the meeting. The Auditorium and the Hotel are within walking distance of one another.

At the Auditorium, there will be 100 scientific exhibits, and among them will be exhibits on the medical history of Minnesota, including information about Indian medicine and the Mayo Clinic. There will also be 130 technical exhibits.

Approximately 200 physicians will present lectures, symposiums and panel discussions on such subjects as neurology and psychiatry, cardiovascular disease, arthritis, orthopedics and various other medical topics. Approximately 35 medical motion pictures will be shown, and a special feature will be a symposium on proctology on Wednesday evening, December 3.

Another special feature of the meeting will be a trans-Atlantic conference between AMA members in Minneapolis and British Medical Association members in Southampton, England, where the BMA will be holding a clinical session.

Closed-circuit color television will be sponsored by Smith, Kline and French Laboratories. The programs will originate at the Mayo Memorial Building on the campus of the University of Minnesota, and will be shown in the Auditorium, downtown. Among the topics will be cardiac by-pass procedures, neurology, orthopedic problems of the extremities, and cesarean section.

High lights of the entertainment are to be a concert by the Apollo Club, a well-known Minneapolis chorus, and a session on the history of Dixieland jazz, with illustrations provided by Doc Evans and his Band. The Woman's Auxiliary to the AMA will hold no regular meetings, but will sponsor a series of tours for physicians' wives during the meeting.

Editorials

ON BEING MORE THAN THANKFUL

In November of each even-numbered year, there are two events, Election Day and Thanksgiving, on which every American's attention should focus. Ideally, perhaps, the order of their occurrence should be reversed, for after counting God's blessings, each of us might be especially intent upon taking his part in preserving them.

Among God's other gifts, He has given us liberty—liberty to keep and to improve our lot, or liberty to damage it. During the 182 years of our history as a nation, with God's help, we Americans have developed the finest social, economic and political systems that have ever existed on the face of the earth. If we exert ourselves to the utmost and if we make no horrible mistakes, we can continue to improve each of those systems.

Without going outside our country, we seldom have occasion to realize how fortunate we are and how much we have that warrants our protection. But let's imagine, as we drive along our city streets and along our country roads, or as we watch our television programs, how disastrously different our surroundings would be if private ownership were curtailed or abolished. Competition would disappear, and without it, research and the development of new products would grind almost to a halt. For the sake of economy or from a lack of initiative, new houses would be constructed on no more than a few basic patterns—if, indeed, single-family houses and comfortably spacious apartment buildings were built at all. And in the absence of proprietorship, individual efforts at beautification would have vanished.

There would be far fewer shops, few choices of goods, and poor service. Store windows would be bare of displays, or filled from one year's end to the next with unvarying, dusty samples of staple merchandise.

How different, and how much more desirable, are our surroundings and the lives we live today! An almost infinite number of suppliers vie with one another to provide every article that we wish to use, at a price that we are willing to pay, and most of them are exerting ever greater efforts to anticipate our wishes. Because they know that we like convenience, they offer it to us in every kind of merchandise, and because they know we like beauty, they do their best to surround us with it.

The American social, economic and political systems are as yet, of course, far from perfect, and some of their faults cry aloud for correction. We don't yet have complete equality of opportunity. Unscrupulous individuals and organizations still prey upon the unwary or the helpless, and some groups exercise disproportionate power in our government. Thus, there are changes that must be made. But the innovations—governmental or non-governmental—that America adopts must not be ones that damage the basic structures of its social, economic and political systems. Thus, it is our duty as well as our privilege to make sure that the best of the old is preserved, and only the best of the new is adopted.

Through our votes in the general election on November 4, we can—and, indeed, we must—help to decide how to preserve and to perfect many of the blessings for which we shall give thanks to God on November 27.

THE BENEFITS OF FLUORIDATION

With the addition of Marshalltown, there now are 24 Iowa communities that add fluoride to their public water supplies. Surveys made in eight of the towns which have been adding one part per million of fluoride to their water over a period of five years have shown that in five, six, seven and eight year old children there has been a pronounced reduction in the decay rate in both deciduous and permanent teeth. In addition it was found that 100 per cent more children had caries-free mouths after the fluoridation program had been in operation for five years.

The lowest cost of fluoridation in Iowa has been three cents per capita per year, and the highest cost has been 14 cents per capita per year.

Professor George Glockler, formerly head of chemistry and chemical engineering at S.U.I., has indicated that there can be no difference in physiologic effects between naturally occurring fluorides and added fluorides, and evidence that naturally occurring flourides are completely harmless can be found right here in Iowa. In 122 of our 692 community water supplies, there are natural fluoride concentrations of between 1.0 and 6.0 parts per million, but no ill effects have been reported in any of the people who use them day in and day out. Indeed, in the northern part of Polk County, there are farm wells that have been found to contain 9.0 parts per million, and still no ill effects have followed the use of water drawn from them!

The fluoridation of public water supplies has had many opponents, particularly in the City of Des Moines, and some of them have argued that it constitutes an illegal invasion of individual rights. But in January, 1958, upon the request of Dr. Edmund G. Zimmerer, State Commissioner of Public Health, an opinion was rendered by Mr. Norman A. Erbe, Attorney General of Iowa, which indicated that the power to make and publish ordinances is conferred subject to the condition that

such ordinances be not inconsistent with the laws of the state, and the laws of the state pertaining to the health aspect of public water supplies provide, in Sec. 135.11 (7) Code of Iowa, that the State Department of Health shall "make inspection of the water supplies and direct the method of installation and operation of the same." Thus, Mr. Erbe concluded, the installation and operation of fluoridation equipment is altogether legal under an appropriate ordinance, subject to the inspection and direction of the State Department of Health.

CHANGED FORMAT FOR ISMS ANNUAL MEETING

The Executive Council of the Iowa State Medical Society, the group that decides matters of policy between meetings of the House of Delegates, has taken steps to prevent an overlapping of attractions at the Society's 1959 Annual Meeting, which is to be held at the Veterans' Memorial Auditorium, in Des Moines, on April 19-22.

At the second session of the House of Delegates last spring, a great deal of concern was expressed about the decreasing attendance at general scientific sessions and about the smallness of some section meetings, and it was thought that simultaneous reference committee deliberations and specialty group gatherings were responsible.

Thus, next year, the first session of the House of Delegates has been scheduled for 10:00 on Sunday morning; the reference committee and nominating committee meetings will take place on Sunday afternoon (and evening, if necessary); and there will be general scientific sessions all day Monday, all day Tuesday, and on Wednesday morning from 10:00 to 12:00, after the final meeting of the House of Delegates. Monday evening is to be kept free for specialty group meetings, and the Woman's Auxiliary Benefit Dance, formerly held at that time, is to follow the Annual Banquet on Tuesday night. There will be no section meetings.

According to the plans which the Executive Council has formulated, special luncheons elsewhere than at the Auditorium will not be arranged by the Society, and will not be included in the official program. In all probability, since there are to be only general scientific sessions, and since those meetings will again be held in the curtained-off east end of the arena floor, there will be few meetings upstairs.

The general session on Wednesday morning is to deal with important topics in medical economics, and the featured speaker will be Dr. Gunnar Gundersen, of LaCrosse, president of the American Medical Association.

Doctors whose specialty groups have assigned them the duty of arranging dinners or business sessions on Monday night are encouraged to ask the help of the State Society's staff. Quality food will be available at lunch time at the Auditorium, and Des Moines has fully adequate facilities for Monday evening dinners and other meetings elsewhere.

AN IMPROVEMENT OVER THE CORONER SYSTEM

On September 16, Dr. Geoffrey Mann, head of the medical examiner system of the State of Virginia, addressed a combined meeting of the Black Hawk County Medical Society and Bar Association, in Waterloo, on the advantages of his state's arrangement over the coroner system that exists in Iowa.

His medical examiner system, he said, includes a host of deputies, all of them doctors of medicine, scattered about the state, and the nearest one of them is called in to investigate each death that has occurred as a result of violence, each death of a person who had appeared to be in excellent health, each death unattended by a physician, each death in prison, each stillbirth and the death of each person whose body is to be cremated. After his preliminary investigation, the examiner seeks to identify the body and participates in the postmortem examination.

Below the deputies are a wealth of technicians, for as Dr. Mann said, attempting to do a postmortem without laboratory services is as foolish as to go swimming with your shoes on.

He pointed out that the distribution of major towns throughout the State of Iowa is especially convenient for the establishment of a system such as his. Medical examiners and laboratories set up in them could serve approximately equal areas with maximum efficiency and moderate cost. On the assumption that 20 per cent of deaths would be investigated, he estimated that the system would require an appropriation of approximately $105,800 annually.

Without a medical examiner system, Dr. Mann declared, people quite literally "are getting away with murder." But besides discouraging capital crimes, the Virginia plan would benefit the public in various other ways. The relatives of any person whose death may be the object of judicial inquiry stand to benefit from a medical examiner system.

Attend the
1959 ISMS ANNUAL MEETING
April 19-22
Des Moines

FIRST IOWA INDUSTRIAL HEALTH CONFERENCE

The First Iowa Industrial Health Conference will take place at the Savery Hotel, Des Moines, on December 6 and 7 under the direction of the Iowa State Medical Society and the Central States Society of Industrial Medicine and Surgery.

At 6:30 p.m. on December 5, the day before the Industrial Health Conference, the members of the Iowa Industrial Medical Society and other physicians who are interested in becoming members of that organization will meet for dinner in the Pioneer Room of the Des Moines Club.

The program, which follows, has been accepted by the American Academy of General Practice for eight hours of Category II credit.

Saturday, December 6

8:00-9:00 a.m. Registration

9:00 Welcoming Addresses

9:30 "The Industrial Health Conference, Its Aims and Purposes"—Fredric P. G. Lattner, executive director, Des Moines Blue Cross Plan, and Chairman of the Health Committee of the Greater Des Moines Chamber of Commerce

9:45 "Eye Conservation Program for Large and Small Industry"—John H. Ganschow, M.D., medical director of Chevrolet Gear and Axle, and Chevrolet Forge, Detroit

10:30 "Skin Diseases in New Industries or From New Chemicals"—Richard J. Steves, M.D., Des Moines dermatologist

11:00 "The Cardiac Evaluation Center and Its Possible Uses to Industry"—John Gustafson, M.D., Des Moines pediatrician and cardiologist

11:30 "The Industrial Nurse in Small Industry—With and Without a Physician"—Katherine Ann Lembright, R.N., industrial-nursing consultant and lecturer on industrial nursing, New York University, New York City

12:00 m. Luncheon (Speaker to be announced)

2:00 p.m. "Health Hazards From Agricultural Chemicals, Insecticides and Fertilizers"—Clyde M. Berry, Ph.D., associate director of the S.U.I. Institute of Agricultural Medicine, Iowa City

2:45 "Poison Control Centers of Iowa"—Everett A. Nitzke, M.D., Des Moines pediatrician

3:30 "Safety Engineering Aspects of Farm Injuries"—Norval J. Wardle, Ph.D., farm-safety specialist, Iowa State College, Ames

4:00 "Corn Picker Injuries"—Julian M. Bruner, M.D., Des Moines specialist in surgery of the hand and in reconstructive and plastic surgery

Sunday, December 7

10:00 a.m. Business Meeting, Board of Governors of Central States Society of Industrial Medicine and Surgery

1:00 p.m. "Iowa Industrial Medical Survey"—Carl J. Lohmann, M.D., Burlington surgeon and industrial physician

1:45 "Small Industry and Compensation Insurance"—Thomas X. Wright, LL.B., claim supervisor, Employers Mutual Casualty Company, Des Moines

2:45 "Compensation Difficulties Which Small Industry Encounters When It Lacks a Medical Department"—Earl R. Jones, Oskaloosa attorney

3:30 "Hazards Encountered in Light and Ferrous Manufacturing"—Frank J. Wagner, B.S.M.E., industrial hygienist at the John Deere Moline Works.

OUT-OF-STATE SPEAKERS



Frank J. Wagner, B.S.M.E.



Katherine Ann Lembright, R.N.



John S. Ganschow, M.D.

President's Page

I will look upon him who shall have taught me this Art even as one of my parents. I will share my substance with him, and I will supply his necessities, if he be in need. I will regard his offspring even as my own brethren, and I will teach them this Art, if they would learn it, without fee or covenant. . . .

The lines printed above are a quotation from the Oath of Hippocrates, and each of us has given his word to act in accord with them, no less than with the other passages that require us never deliberately to cause a death and never to disclose our patients' secrets.

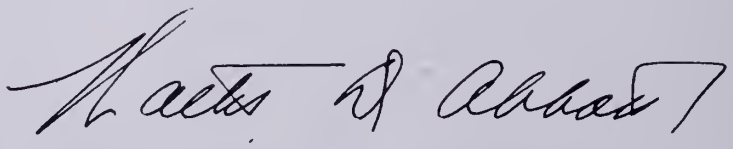
But what do those lines mean today? What action does the twentieth century physician promise when he recites them?

I think he promises regular and generous contributions to the support of the medical school from which he received his training—either direct gifts or gifts through the American Medical Education Foundation.

Each of us knows that inflation has brought difficulties to the medical school from which he received his degree, and nearly every one of us feels very strongly that neither his school nor any other should be driven to the extremity of beseeching the federal government to make up deficits in maintenance and salary funds, for federal subsidy means eventual federal control.

The AMEF has no administrative costs to pay, for they are met by the AMA. Thus, 100 cents of every dollar contributed to it goes to a medical school, and to a particular medical school if the donor has so earmarked his gift. The donations can be deducted from the donor's taxable income at both federal and state levels.

This year, let's act upon our promise to share our substance with the schools where we learned our Art, so that their present students may continue to have the best training possible. And since the AMEF is a subsidiary of the AMA, let's channel our gifts through it.



President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

COLD INJURY, GROUND TYPE, IN WORLD WAR II, by *Col. Tom F. Whayne*, M.C., and *Michael E. DeBakey*, M.D. (Washington, U. S. Government Printing Office, 1958. $6.25).

MECHANISMS, DIAGNOSIS AND MANAGEMENT OF HEAD INJURIES, by *E. S. Gurdjian*, M.D., and *J. E. Webster*, M.D. (Boston, Little, Brown and Company, 1958. $14.00).

PATHOPHYSIOLOGY IN SURGERY, by *James D. Hardy*, M.S. (Chem.), M.D. (Baltimore, The Williams & Wilkins Company, 1958. $19.00).

UROLOGY IN GENERAL PRACTICE, by *Frank Coleman Hamm*, M.D., and *Sidney R. Weinberg*, M.D. (Philadelphia, J. B. Lippincott Company, 1958. $6.00).

THE CARE OF THE GERIATRIC PATIENT, ed. by *E. V. Cowdry*, Ph.D. (St. Louis, The C. V. Mosby Company, 1958. $8.00).

CIBA FOUNDATION COLLOQUIA ON AGEING, VOLUME 4: WATER AND ELECTROLYTE METABOLISM IN RELATION TO AGE AND SEX, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Maeve O'Connor*, B.A. (Boston, Little, Brown and Company, 1958. $8.50).

POISONING, A GUIDE TO CLINICAL DIAGNOSIS AND TREATMENT, SECOND EDITION. by *W. F. von Oettingen*, M.D., Ph.D. (Philadelphia, W. B. Saunders Company, 1958. $12.50).

CIBA FOUNDATION SYMPOSIUM ON THE NEUROLOGICAL BASIS OF BEHAVIOUR, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor*, B.Sc. (Boston, Little, Brown and Company, 1958. $9.00).

SCHIZOPHRENIA, by *Manfred Sakel*, M.D. (New York City, The Philosophical Library, Inc., 1958. $5.00).

WHAT WE DO KNOW ABOUT HEART ATTACKS, by *John W. Gofman*, M.D. (New York City, G. P. Putnam's Sons, 1958. $3.50).

BOOK REVIEWS

CIBA FOUNDATION SYMPOSIUM ON THE CEREBROSPINAL FLUID: PRODUCTION, CIRCULATION AND ABSORPTION, ed. by *G. E. W. Wolstenholme*, O.B.E., M.A., M.B., B.Ch., and *Cecilia M. O'Connor*, B.Sc. (Boston, Little, Brown and Company, 1958. $9.00).

This is the thirty-ninth volume published since 1947 by the Ciba Foundation for the Promotion of International Cooperation in Medical and Chemical Research, and as the title indicates, it concerns itself with the cerebrospinal fluid.

Most of us were taught that the cerebrospinal fluid is produced by the choroid plexuses, especially in the lateral ventricles, and that it then circulates caudad in the ventricular system, through the foramen of Munro and third ventricle, through the inter and fourth ventricle, out through the foramen of Magendie and foramina of Lushka, and then rostrally up and around the cisterns of the brain, to be absorbed in the arachnoidal Pacchionian granulations along the sagittal sinus. But is such a scheme valid? This Ciba symposium explored the traditional explanation.

It is pointed out in this volume that although the exchange of radioactive isotopes in cerebrospinal fluid constituents is more physiological than the India ink and Prussian blue experiments of Weed in 1914, the data obtained in the recent studies are subject to far more misinterpretation than were the findings secured through the use of dyes. Water exchanges across the general linings of the subarachnoid space and the ventricular cavities, but such exchange does not necessarily constitute the formation of the cerebrospinal fluid. Non-aqueous constituents of the fluid presumably arise from the choroid plexuses. Perhaps there is a sodium pump mechanism there which makes the fluid produced by the plexus hypertonic with regard to sodium when compared with the ventricular or subarachnoid fluid. If so, then the activity of the choroid plexus must be secretory, rather than one of simple filtration. But if fluid is formed below an intraspinal subarachnoid block, then there must be extra-ventricular formation of fluid, as from perivascular or perineuronal spaces.

None of these problems was categorically solved, but nevertheless, much ingenious experimental evidence was adduced by the various participants in the symposium.

The book itself, 326 pages in length, is attractively printed on coated paper, and 141 plates are included. There are 15 subject headings, and in each instance the discussion, including contributions from each of the symposium participants, has been reproduced in full as it took place in England during May, 1957. The volume concludes with a general discussion entered into by a majority of the 25 participants.

The purpose of the Ciba Foundation is admirably served by the symposium presented in this volume. Such a collection of information, lively discussion and informed speculation must excite the interest of all those concerned with neurophysiology and disorders of nervous-system function.—*John T. Bakody*, M.D.

INJURIES OF THE HAND, by *Ronald Furlong*, F.R.C.S. (Boston, Little, Brown and Company, 1957. $9.00).

This recently published book should be of great interest to all surgeons who treat injuries of the hand, whether general surgeons, orthopedists or plastic surgeons. The author is a London orthopedic surgeon who had much to do with the organization of reconstructive hand surgery in British army hospitals during World War II. Following the war, he developed a service in hand surgery at St. Thomas's Hospital, London, which has become one of the outstanding centers of its sort in Great Britain.

The material in this book is well arranged, and is illustrated by exceptionally fine photographs, many of which were taken in the operating room. The author has a fresh and interesting style which makes the book most readable.

The opinions expressed represent conclusions drawn

from an extensive experience in surgery of the hand in both military and civilian practice. One is sure to be stimulated to do better hand surgery after reading this fine book.—*Julian M. Bruner,* M.D.

HANDBOOK OF MEDICAL TREATMENT, SIXTH EDITION, by *Milton J. Chatton,* M.D., *Sheldon Margen,* M.D., and *Henry Brainerd,* M.D. (Los Altos, California, Lange Medical Publications, 1958. $3.50).

Many times, both specialists and general practitioners wish quickly to grasp information for use in an emergency. This is a volume that answers such needs, and it can easily be carried about by the physician.

Though brief, the information in this volume is quite complete and to the point. The various treatments recommended are accepted and up-to-date. Although the book would not suffice as a source of complete data on any specific problem, I highly recommend it as a quick source of valuable information which, in some instances, might save lives.—*Floyd M. Burgeson,* M.D.

HEART DISEASE IN INFANCY AND CHILDHOOD, by *John D. Keith,* M.D., *Richard Rowe,* M.D., and *Peter Vlad,* M.D. (New York City, The Macmillan Company, 1958. $22.50).

In 853 well written and easily read pages, Keith, Rowe and Vlad have presented an extremely comprehensive text of pediatric cardiology. The initial chapters review in some detail various aspects of heart disease such as incidence, findings on physical examination, embryology, etc., and include an excellent discussion of the several special technics used in the diagnosis of heart disease. These discussions include electrocardiography, oximetry, cardiac catheterization and angiocardiography.

After these, the authors have included every abnormality of the heart found in children. The descriptions of these abnormalities are complete. The ample illustrations are quite clear, and in general the discussions of treatment and prognosis leave little to be desired.

Two appendices follow the main text. The first gives a brief résumé of pre- and postoperative care of the cardiac patient, and the second gives a rather complete list of drugs in the field of pediatric cardiology, with approximate dosage ranges.

In addition, on the inside of the back cover is a fold-out chart summarizing the 25 most commonly found cardiac defects of this age group. All of the essential information is there—from incidence to treatment. The chart will prove to be highly valuable reference sheet. Indeed it is almost worth the price of the book to which it is attached.—*Edward R. Duffie,* M.D.

Attend the
AMA CLINICAL MEETING
Minneapolis
December 2-5, 1958

PHYSICAL THERAPY SEMINAR AT S.U.I.

On November 14 and 15, the S.U.I. College of Medicine is to present a Physical Therapy Seminar, in cooperation with the Iowa Chapter of the American Physical Therapy Association, in the Medical Amphitheater at Iowa City.

Friday, November 14

8:30 a.m. "Classification of Spasticity and Various Methods of Treatment"—Dr. F. Miles Skultety, Department of Neurology

9:30 a.m. "Ultrasonics in the Treatment of Poliomyelitis"—Joseph A. Szuhay, RPT

10:30 a.m. "Spasticity in Patients With Cerebral Vascular Accidents"—Dr. R. A. Utterback, Department of Neurology

12:00 m. Luncheon

1:00 p.m. "Cerebral Palsy"—Dr. R. R. Rembolt, director of the S.U.I. School for Severely Handicapped Children

2:00 p.m. "New Physical Therapy Treatments for Cerebral Palsied Children"—Charlotte Vasey, RPT, S.U.I. School for Severely Handicapped Children

3:00 p.m. "Spasticity in Patients With Multiple Sclerosis"—Dr. R. J. Joynt, Department of Neurology

4:00 p.m. "Stickmen Exercise Booklet for Home Treatment Instructions"—Terry Jones, RPT.

8:00 p.m. Dinner, at the Ox Yoke Inn, Main Amana. Address: "European Spas"—Dr. W. D. Paul, Department of Physical Medicine

Saturday, November 15

8:30 a.m. "Proprioceptive Neuromuscular Facilitation" (Movie). Commentary by Dr. Max D. Wheatley, Department of Anatomy

9:30 a.m. Demonstration of Proprioceptive Neuromuscular Facilitation—Helen Hislop, RPT, and Wayne Paustian, RPT

10:30 a.m. "Various Treatments for Decubiti"—Dr. W. C. Huffman, Department of Otolaryngology and Maxillofacial Surgery

12:00 m. Luncheon

The registration fee will be $4, and the lunches will be $1 each. A limited number of tickets to the Iowa-Ohio State football game, which is to be played in Iowa City on November 15, will be available to registrants at this seminar, but no more than two will be sold to any one of them. Physicians and therapists who wish football tickets are urged to register in advance. Make checks payable to the Iowa Physical Therapy Association. Housing should be arranged for similarly. Address: Physical Therapy Department, Children's Hospital, Iowa City.

S.U.I. COURSE ON ARTHRITIS AND ATHLETIC INJURIES

In cooperation with the Iowa Chapter of the Arthritis and Rheumatism Foundation, the faculties in physical medicine and orthopedic surgery at the S.U.I. College of Medicine will offer a short course in Clinical Physical Medicine and Athletic Injuries on November 21 and 22, in Iowa City.

Friday, November 21

9:15 a.m. "Diagnosis of Rheumatoid Arthritis"—Charley J. Smyth, M.D., director of arthritis clinics, Colorado University Medical Center, Denver

10:15 a.m. "Laboratory Procedures for Diagnosis of Rheumatoid Arthritis"—W. D. Paul, M.D.

10:45 a.m. "Medical Treatment of Rheumatoid Arthritis"—Dr. Smyth

12:00 m. "Surgical Treatment of the Chronic Arthritides"—C. B. Larson, M.D.

12:15 p.m. "Surgical Treatment of the Arthritic Hand" —A. E. Flatt, M.D.

12:30 p.m. Lunch

1:30 p.m. "Total Rehabilitation of the Arthritic"—R. W. Lamont-Havers, M.D., associate medical director, The Arthritis and Rheumatism Foundation, New York City

2:45 p.m. Demonstrations of Physical Therapy Technics Used in Treatment of Rheumatoid Arthritis—Dr. Paul, Olive Farr, B.S., and staff

Dinner: Curt Yocum's Restaurant
Address: "The Influence of Current Research on the Present and Future Outlook of the Arthritic"—Dr. Lamont-Havers

Saturday, November 22

SYMPOSIA—ATHLETIC INJURIES

9:00 a.m. Demonstration of Protective Taping—Doyle Allsup and Dr. Paul

10:15 a.m. "Sprains and Strains—Diagnosis and Conservative Treatment"—Dr. Flatt and Dr. Larson

11:10 a.m. "Examination and Surgical Care of Knee Injuries"—Dr. Flatt and Dr. Larson

The registration fee for the conference is $20, and that sum will include lunch tickets. Dinner tickets can be purchased at the registration desk. A limited number of tickets to the Iowa-Notre Dame football game, which is to be played in Iowa City on November 22, will be available to advance registrants at $4 each. Accommodations at the University's Continuation Study Center cost $3.50 per person per night.

Because of the crowd expected for the Notre Dame football game, advance reservation of housing is advised. Make checks payable to the State University of Iowa.

S.U.I. POSTGRADUATE COURSE IN SURGERY

The Department of Surgery at the S.U.I. College of Medicine will present a Postgraduate Course in Surgery, in Iowa City, on December 9 and 10.

Tuesday, December 9

9:20 a.m. "Presentation of Case: Multiple Injuries"—L. G. Freimark, M.D., resident at Mt. Carmel Hospital, Detroit

9:30 a.m. "Traumatic Asphyxia"—D. M. Sensenig, M.D., VA Hospital, Albany, New York

9:45 a.m. "Internal Injuries"—S. E. Ziffren, M.D.

10:00 a.m. "Principles of Femoral-Shaft Fracture Care" —C. B. Larson, M.D.

10:40 a.m. "Pathologic Findings in Fat Embolism"—Emory D. Warner, M.D.

11:00 a.m. "Experimental Work in Fat Embolism"—J. A. Buckwalter, M.D.

11:20 a.m. "Surgery for Benign Disease of the Esophagus"—S. R. Friesen, M.D., associate professor of surgery, University of Kansas Medical Center

12:30 p.m. Lunch

1:30 p.m. "Anatomy of the Anus and Rectum"—E. S. Brintnall, M.D.

1:50 p.m. "Benign Ano-rectal Diseases and Cancer" —Dr. Buckwalter

2:05 p.m. "Benign Colon Diseases and Cancer"—R. T. Tidrick, M.D.

2:15 p.m. "Left Colectomy for Carcinoma of the Sigmoid and Rectosigmoid"—Dr. Friesen

3:00 p.m. "Adjuncts to Radical Pelvic Surgery"—R. C. Hickey, M.D.

3:15 p.m. Symposium on Colon and Rectal Cancer—Drs. Hickey, Brintnall and Tidrick

6:00 p.m. Social Hour and Dinner—Curt Yocum's Restaurant

Wednesday, December 10

9:00 a.m. "Anatomical and Functional Basis for Varicose-Vein Diagnosis"—J. A. Gius, M.D.

9:30 a.m. "Thrombophlebitis and Postphlebitic Syndrome"—M. M. Musselman, M.D., chairman of the Department of Surgery, University of Nebraska College of Medicine

10:30 a.m. "Diagnosis of Systemic Arterial Disease"—F. D. Staab, M.D.

10:50 a.m. Symposium on Treatment of Vascular Disease—Drs. Ziffren, Musselman, Gius, Brintnall, Perret, Lawrence and Staab

12:30 p.m. Lunch

1:30 p.m. Symposium on Misuse or Dangers of Antibiotics, Steroid Hormones and Analgesics in Clinical Surgery—Drs. Tidrick, Musselman, Ziffren and Moyers

2:15 p.m. "Selection of Patients for Cardiac Surgery" —J. L. Ehrenhaft, M.D.

3:30 p.m. Clinical Pathologic Conference—Dr. Musselman



Blue Cross
Blue Shield



The Community Rate

From an insurance risk standpoint, a community can be divided into two categories: (1) those whom we may term the poor risks—people who make more than average use of their hospital and surgical-medical protection; and (2) the good risks—those whose utilization is less than average.

By combining poor risks and good risks we get a community group, for which a community rate can be developed. Nationally, nearly 9 per cent of our people are 65 years of age or older, and their excess costs should be spread among the other 91 per cent of the insured, so that all will share in the disproportionate burden of health care for the aged.

One may ask, "How can we spread this risk over the entire community? Won't the good risks be attracted away by the lower rates offered by commercial carriers under their 'experience rating plans'?" The answer lies in the unique "full service" program offered by Blue Shield. We've found that members everywhere prefer Service Benefits, rather than dollar payments. With Service Benefits, patients are assured that their medical care will be paid for in full. With indemnity benefits, a patient may be attracted at first by the idea of getting a large sum of money, but when he finds out that the indemnity isn't enough, in some instances, to cover the costs, he begins to reconsider. He then remembers that Service Benefits are exactly what their name implies—full service, regardless of cost.

Although developed for the benefit and protection of the patient, service benefits now have a real advantage for the doctor. Without them, voluntary health insurance is doomed!

Experience ratings, of course, do provide benefits at a lower cost for good risks, but they leave the poor risks—including our elder citizens—without a type of protection that they can afford. Thus, the door is left wide open for the intervention of a third party, the government.

Since it is the middle-income people who include most of our healthier individuals—the good risks—it is essential for the profession to make certain that Service Benefits are offered to them, as well as to the low-income group.

Iowa Academy of General Practice

TENTH ANNUAL MEETING

We owe a debt of gratitude to the 13 general practitioners who, 10 years ago, had the courage and foresight to establish the Iowa Academy of General Practice. Five of the eight remaining charter members were present at the Chapter's Tenth Annual Meeting and Scientific Assembly, held in Des Moines on September 21, 22 and 23, and they had the satisfaction of seeing that the organization they founded in 1948 has developed into an institution of which they can feel sincerely proud.

NEW OFFICERS

At the business meeting, the following officers were elected for the ensuing year: L. H. Jacques, M.D., Iowa City, president-elect; H. W. Mathiasen, M.D., Council Bluffs, vice-president; and V. L. Schlaser, M.D., Des Moines, secretary-treasurer. Roscoe M. Needles, M.D., of Atlantic, was elected to a three-year term as director, and Ralph H. Moe, M.D., of Griswold, was reelected national delegate, and George A. Paschal, M.D., of Webster City, was elected alternate national delegate, both for two-year terms.

R. L. Knipfer, M.D., of Jesup, was presented the gavel and became president of the Chapter for 1958-59; Donald H. Kast, M.D., of Des Moines, the immediate past-president, became a member of the Board of Directors; Wm. A. Castles, M.D., of Dallas Center, and Elmer M. Smith, M.D., of Cedar Rapids, will continue as members of the Board; and C. H. Stark, M.D., of Cedar Rapids, and Eugene Smith, M.D., of Waterloo, will continue as national delegate and alternate delegate, respectively.

SCIENTIFIC PROGRAM

The two-day program of the Scientific Assembly had been planned and developed for the interests of general practitioners. Joseph G. Molner, M.D., health commissioner of the City of Detroit, discussed "The Role of the General Practitioner in Public Health" in the first of his two addresses, stressing the need of every physician to become "public-health minded." Later in the program, he discussed "Health Problems in the Care of the Aged," pointing out that with the lengthening of the life span, geriatrics has become more than just internal medicine, and that the specialized problems of the aged must, for the most part, be cared for by the general practitioner.

Priscilla White, M.D., of the Joslin Clinic, Boston, spoke first on "Recent Developments in Diabetes Mellitus." She evaluated many of the new oral medications used in treating that disease, and reviewed the various types of insulin and diabetic diets that have been developed. Later, she discussed "Juvenile Diabetes," pointing out that it is an entirely different disease from that which attacks adults. The juvenile diabetic, she said, is usually more unstable than the adult, and has added problems, one being that frequently the patient is too young to understand the special requirements of the condition and is accustomed to engage in a wide variety of activities rather than to follow an established pattern.

L. J. Halpin, M.D., of Cedar Rapids, presented two very interesting discussions of conditions that frequently develop into acute problems for the general practitioner. His topics were "Bronchial Asthma" and "Allergic Emergencies," and his remarks were especially appreciated by those in attendance, for he is an Iowa practitioner who treats the sorts of allergic cases that occur in this area. Furthermore, he told what treatments he uses and how he uses them. A. L. Sahs, M.D., professor and head of the Department of Neurology at S.U.I., discussed "Neurological Complications of Diabetes Mellitus." If diabetic patients could only realize some of the difficulties that they may encounter, he declared, they would take their disease more seriously, rather than attempt just to stay somewhere between diabetic coma and insulin shock. In his second presentation, "Neurological Examination of Elderly Patients," he showed that many helpful diagnostic signs are revealed by a complete and careful neurological examination.

In general, the second day's program consisted of discussions relating to the circulation. Francis Murphy, M.D., of Milwaukee, professor and head of internal medicine at Marquette University, opened the session with a lecture on "Acute Coronary Disorders." His second address, "Congestive Heart Failure," summarized coronary problems. Clark H. Millikan, M.D., of the Mayo Foundation, spoke on "Diagnosis and Treatment of Various Kinds of Strokes," an enormous subject which he succeeded in outlining very simply. Later, in his discussion of "Coma," he defined the

various stages of consciousness and pointed out the possible causes for each of them.

N. W. Barker, M.D., also from the Mayo Foundation, discussed "Anticoagulant Therapy." He separated the topic into two parts: technic, and indications and contraindications. Bruce Chown, M.D., of Winnipeg, professor of pediatrics at the University of Manitoba and director of the Blood Group Reference and Research Laboratories there, presented the annual Ernest E. Shaw Memorial Lecture on the topic "Some Aspects in the Handling of Erythroblastosis." At the close of the session, Iowa doctors addressed many interesting questions to Dr. Chown regarding problems of that sort which had arisen in their practices.

SPECIAL EVENTS

At the Monday luncheon, Mr. Loren Hickerson, executive secretary of the S.U.I. Alumni Association, gave a talk on "The Future of Iowa" that met an enthusiastic reception from one of the largest groups that has ever attended an IAGP noon meeting. At the Tuesday luncheon, the speaker was Jack McKenty, M.D., of Winnipeg, immediate past-president of the College of General Practice of Canada. The dry wit with which he spoke about problems of the Canadian generalist entertained all of his hearers.

On Monday evening, the Chapter's annual banquet was preceded by a Hospitality Hour, and was followed by dancing. The charter members present were given certificates of appreciation, and members who had been in practice for 50 years or more were also honored. The speaker of the evening was Fount Richardson, M.D., of Fayetteville, Arkansas, president-elect of the American Academy of General Practice.

SCIENTIFIC PAPERS TO BE PUBLISHED

A half dozen or more of the scientific papers presented at the 1958 Annual Meeting of the IAGP are to appear, in coming months, in the JOURNAL OF THE IOWA STATE MEDICAL SOCIETY.

GP REFRESHER COURSE IN MADISON

A refresher course for general practitioners sponsored jointly by the University of Wisconsin Medical School and the Wisconsin Academy of General Practice will be offered in Madison on November 6, 7 and 8.

Visiting speakers and faculty members from the University of Wisconsin Medical School will present practical, fresh and useful facts on new advances in the various fields of medical practice. Patient demonstrations will be a feature of the course. The Departments of Medicine, Pediatrics, Surgery, Psychiatry and Gynecology-Obstetrics will each be responsible for a half day of instruction.

The highly-rated University of Wisconsin football team is to play Northwestern University in Madison on November 8.

CONFERENCE AT INDEPENDENCE

All doctors, but particularly those who practice in northeast Iowa, are asked to attend a conference at the Independence Mental Health Institute on Friday, November 7, at 3:00 p.m. The topic will be "Schizophrenia," and the speakers will be Dr. John Loeck and Dr. R. R. Cameron, of Independence, Dr. Albert Norris, of Iowa City, and Dr. James Mahoney, of Council Bluffs.

NEW FIELD SECRETARY

On October 1, Mr. Julian B. Serrill joined the staff of the Iowa State Medical Society as a field secretary. His work will involve all activities of the Society, but he will be especially active in public relations, legislation and medical service programs.

Mr. Serrill attended Morningside College and then moved to Drake University, where he majored in political science and took his B.A. degree in 1936. During World War II, he served the Navy in the Pacific theatre, and held the rank of lieutenant, junior grade. Since 1952, he has been executive secretary of the Drake University National Alumni Association, helping to inaugurate the Alumni Fund and to set up the Alumni Distinguished Service Award program.



Mr. Julian Serrill

THE DOCTOR'S BUSINESS



Ten Rules for Successful Investing

HOWARD D. BAKER

WATERLOO

Most people regard investing as a secondary activity and devote much less time to it than to their principal businesses or professions. In principle, such a division of time may be quite logical, but in practice, investments get much less attention than they deserve and need.

The investor who is willing to admit that he has neither time nor inclination to learn the basic principles of investment and to follow the market probably should put his money into either open- or closed-end funds. But the man who already has substantial accumulations of stocks and bonds or wants to invest his money for himself should learn and follow 10 basic precepts.

(1) Perhaps the most important principle is that of making every investment decision conform to your specific needs. A young investor with high earning-power is justified in assuming a reasonable degree of risk, but an older investor with a lower earning-power must invest primarily for reasonable safety of capital. Even the latter investor, however, must keep some of his money in variable-price securities nowadays in order to maintain its purchasing power in the continuing inflationary trend that characterizes our economy.

(2) All investors should minimize risk as much as possible. Dollar-averaging, balancing of one's portfolio between fixed- and variable-value investments, and confining one's stock holdings to "quality" issues are all means of accomplishing this objective.

(3) Adequate diversification must be maintained at all times. Since no one can scientifically select the one, two or three stocks best suited to capital growth, scattering one's purchases among several separate industries improves his chances of achieving reasonable profits.

(4) Holdings should be geared to economic conditions. For example, bonds of distant maturity should be avoided in times of rising interest rates, but are excellent purchases when rates are steadily declining. When there is a recession, the securities of "soft" goods makers and dealers are best, and during a boom period, capital goods makers' securities offer the greater potential.

(5) An effort should be made to anticipate *general* market trends. Complete success in this endeavor is impossible, but regardless of one's objectives, he should reduce his holdings in volatile common stocks when a long-term up-swing appears to be ending.

(6) The investor should purchase only after a thorough investigation, and never on the basis of tips or hunches. Though the scientific approach is less adventurous, it is the only sound means of achieving long-term investment success.

(7) One should avoid shares whose "public appeal" is running beyond the true potential of the company that has issued them. The price of the security one thinks of buying must be compared with those of others in the same field and with the market in general.

(8) No individual issue can be purchased, put away and forgotten. Keeping abreast of one's holdings is a constant task. Corporate fortunes change, and today's most attractive purchase may be a prime candidate for sale a few months or a few years hence. The investor must study the firms' annual and interim reports, and keep in touch with technological and economic developments.

(9) The part-time investor must not speculate! He must invest for the long term, rather than take chances on unpredictable short swings. Margin trading, penny stocks and promotional situations invariably bring losses to the non-professional investor.

(10) Patience is a prime virtue in the investment business. Don't reach for a stock that has already enjoyed a sustained rise, and don't allow technical market adjustments to panic you into selling an attractive security. The seasoned investor has learned to "ride with the tide." If one commitment fails to equal his expectations, the next one may do better.

The poor results of most individual investment programs can be attributed directly to a failure to follow these basic rules for investing, and to the abstract approach which the majority of investors take to the highly technical task of building an investment portfolio.

STATE DEPARTMENT OF HEALTH

Edward D. Zimmer
COMMISSIONER

MORTALITIES INCREASE

The deaths among Iowa residents in the first half of 1958 were 2.5 per cent more numerous than were those in the corresponding period of 1957. Although population growth accounts for some of the increase, most of it was due to a rise in the level of mortality. Examination of death rates for the first six months in each of the last five years shows a pattern of slow but steady increase from a low point that was set in 1954.

About 90 per cent of the excess deaths of the first six months of 1958 over the corresponding 1957 period were the consequence of an increase in the death rate from pneumonia and influenza, and from an apparently associated rise in mortality from cardiovascular diseases. The pneumonia and influenza death rate for the first six months of this year was up 7.5 per cent over the rate for the corresponding months in 1957. All of that excess occurred during the first four of those months, and the pneumonia and influenza death rate has since fallen back to the "normal" level that preceded the 1957 epidemic. Barring another outbreak this coming winter, it is expected that total deaths for the year 1958 will fall below the 1957 figure.

Although the number of accidental deaths was almost 6 per cent above last year's figure, deaths from automobile accidents at the mid-point of 1958 were running about 1.7 per cent below last year's. If the death rate from this cause continues through the year at the level maintained during the first half, there should be about 200 fewer motor vehicle deaths this year than last.

Deaths from congenital malformations, birth injuries and diseases peculiar to early infancy during the first half of 1958 showed an increase of 9.7 per cent over last year's figure, despite a 3.6 per cent decrease in the number of births. This upswing resulted in a rise in the infant death rate from 21.3 per 1,000 live births in the first half of 1957 to 23.1 per cent in the corresponding period of 1958.

The death rate for diabetes rose from 15.8 to 16.9 per 100,000 estimated population—an increase of 7.0 per cent. Cancer mortality remained almost unchanged. Two polio deaths were reported for the first half of 1958, as compared with five deaths in the similar period last year. Suicides increased 21.7 per cent.

Data for past years show that changes in mortality of the magnitude mentioned above are not unusual, and need not be interpreted as indicating a general trend.

MORTALITIES AMONG IOWA RESIDENTS

Cause	*January-June 1957*		*January-June 1958*	
	NUMBER	RATE*	NUMBER	RATE*
All causes	13,473	995.4	13,808	1,009.0
Heart disease	5,228	386.2	5,332	389.7
Cancer	2,138	158.0	2,163	158.1
Vascular lesions	1,859	137.3	2,005	146.5
Accidents	759	56.1	798	58.3
Congenital malformations—Birth injuries and Diseases of early infancy	528	39.0	579	42.3
Pneumonia and influenza	432	31.9	469	34.3
General arteriosclerosis	385	28.4	409	29.9
Diabetes	214	15.8	232	17.0
Suicide	152	11.2	185	13.5
Nephritis and nephrosis	125	9.2	117	8.6

* Number per 100,000 estimated population

MORBIDITY REPORT FOR MONTH OF SEPTEMBER

Disease	*1958 Sept.*	*1958 Aug.*	*1957 Sept.*	*Most Cases Reported From These Counties*
Diphtheria	0	0	0	
Scarlet fever	86	91	52	Jefferson, Johnson
Typhoid fever	3	2	2	Cerro Gordo, Lee
Smallpox	0	0	0	
Measles	154	210	24	Buena Vista, Scott
Whooping cough	13	12	21	Boone, Des Moines
Brucellosis	20	16	12	Dubuque
Chickenpox	5	31	29	Clay, Davis
Meningococcus meningitis	1	0	0	Warren
Mumps	130	165	69	Clay
Poliomyelitis	29	20	32	Floyd, Polk, Woodbury
Infectious hepatitis	24	7	7	Dubuque, Polk
Rabies in animals	13	19	11	Bremer, Dickinson
Malaria	0	0	1	
Psittacosis	0	1	0	
Q fever	0	0	0	
Tuberculosis	40	56	16	For the state
Syphilis	73	105	103	For the state
Gonorrhea	67	105	69	For the state
Histoplasmosis	2	1	0	Jackson
Food intoxication	0	0	17	
Meningitis (type unspec.)	0	0	11	
Diphtheria carrier	0	0	0	
Aseptic meningitis	14	16	4	Polk, Wright
Salmonellosis	0	1	4	
Tetanus	0	0	1	
Chancroid	0	0	0	
Encephalitis (type unspec.)	8	0	0	Pottawattamie
H. influenzal meningitis	0	2	0	
Amebiasis	2	6	1	Boone
Shigellosis	0	3	3	
Influenza	1	0		Polk

MEDICAL HISTORY



The History of Medicine in Clay County, Iowa

E. E. MUNGER, JR., M.D.

SPENCER

For nearly 20 years after the admission of Iowa to the Union, the settlers in its northwest section had to rely on one another for care in sickness and injury. Dr. Isaac H. Harriott located near the Iowa Great Lakes in 1856, but he died in the Indian massacre of the next year. The first physician to settle in Clay County was Dr. M. M. Himes, who came to Spencer in 1871. Thereafter, a steady increase occurred in the population of the area, and with the new arrivals came other physicians to provide people the meager medical benefits of that day.

But though the medical profession had few and relatively ineffective materials to offer, it was rich in the human intangibles that modern drugs and equipment have failed to displace. The pioneer doctors' willingness to serve people's needs in the face of great physical hardships was not the least of their virtues. For more than 30 years, the country doctor spent most of his time traveling by horse and buggy on his daily calls. My own father drove his team, Roxy and Boy, on a 90-mile circuit of calls that occupied some 30 hours.

The physician of the early days was able to afford some luxuries uncommon among his fellow settlers. One pioneer who recalls the 1870's relates that settlers identified their doctor as far away as they could see his top buggy and team of pulling horses. They themselves got along with uncovered spring wagons. Before the advent of the telephone, the doctor was often alerted to the necessity of his making a night call by hearing the rattle and clatter of a horse and wagon crossing the Little Sioux River bridge at Spencer. But the calls that he found physically most demanding were those that he was required to make in the spring, when the mud was hub-deep everywhere and the flooded creeks and rivers had to be forded, or in the winter, when despite a buffalo coat and laprobe, and either heated soapstones or a lighted lantern on the floor of the sleigh, he reached his destination chilled to the bone and with his beard ice-encrusted.

The records of deaths in Clay County for the 30 years between 1880 and 1910 are noteworthy. Tuberculosis—then called either "phthisis" or "quick consumption"—led all of the other causes by a wide margin.

	1880-1890	*1890-1900*	*1900-1910*
Tuberculosis	12	35	56
Diphtheria	14	21	13

The decrease that occurred in diphtheria deaths followed the introduction of diphtheria antitoxin. "Runaway" occasionally was entered as the cause of a death—the counterpart of today's "motor vehicle accident." I found some so-called causes of death that amused me. "Lack of vitality" and "exhaustion from hard labor" were assigned responsibility for neonatal deaths. "Broken heart" and "nervousness" each appeared once, and one death was said to have resulted from "self-intoxication from eating too many tomatoes."

MEDICAL ORGANIZATIONS

The Clay County Medical Society was organized on September 5, 1903, and its first officers were Charles McAllister, M.D., president; H. O. Green, M.D., vice-president; and Minerva Porter-Wertz, M.D., secretary-treasurer. The earliest record of a meeting is dated 1907, and perhaps that fact indicates dormancy during the first few years of its existence. But such is not the case nowadays. The Clay County Society has maintained 100 per cent membership for a number of years.

The Upper Des Moines Valley Medical Association, encompassing doctors from a larger area, had been organized in 1897, and it has held a summer meeting in each of the years since then, offering excellent scientific programs which are always enthusiastically received.

The Woman's Auxiliary to the Clay County Medical Society was organized in 1949, and its members have been very active in medicine's resistance to socialism. It sponsors the Future Nurses' Club, and conducts an annual sale of products made by handicapped persons. In addition, it presents its share of exhibits each year in the

Health Education Building at the Clay County Fair.

HOSPITALS

Today, Spencer has an excellent 75-bed hospital which serves not only Clay County but considerable areas beyond. Attainment of the present-day facilities evolved from a beginning in 1905, when interested citizens subscribed for stock in a contemplated building. Through correspondence, a number of outstanding physicians of that day were persuaded to let themselves be listed as members of the consulting staff, but not enough money could be raised, and the movement died out.

A few years later, a layman, Mr. Jasper Wayne, volunteered to set up a hospital, and the structure he provided gave the town of Spencer facilities as good as those found in similar rural communities. But changes were inevitable, and as a result, the Spencer Hospital Association, composed of women representing the various churches and clubs, was organized in 1915. It took over the management of the hospital, and under its able management the institution served the area until the first municipal hospital of 25 beds was built in 1935. That structure continues in use as a wing of the present 75-bed hospital, the newer part having been built in 1953 under the provisions of the Hill-Burton Act.

Actually, Clay County is the birthplace of the county public hospital idea. During the early years of his practice in Clay County, my father, Dr. Elbert Ervin Munger, became engrossed with the idea that rural communities need hospitals as much as do urban ones. He saw the advantages which city hospitals were providing for their patients, and his first-hand acquaintance with the difficulties of operating on kitchen tables for appendicitis and extraterine pregnancy drove him to seek support for his idea. The project took much of his time, energy and economic resources, and though he found some support here and there, most people were indifferent to the need, and there was bitter and even underhanded opposition from some quarters.



E. E. Munger, Sr., M.D.

He began studying the need on a national basis, made personal inquiries in all of the states, and worked up a formidable mass of evidence in the form of maps, charts and statistics. Throughout 1907 and 1908, he worked at drafting a bill to enable counties to levy a tax for the construction of county general hospitals, and got Mr. Benjamin Franklin Felt, Clay County's representative in the 33rd General Assembly of Iowa, to introduce it and work for its passage. My father remained in Des Moines for the duration of the legislative session, and saw his bill enacted into law on April 6, 1909. The measure was the first of its kind in the United States!

The Iowa State Medical Society, at its annual meeting that year, acknowledged the value of the new enabling act by declaring, "We believe that the County Public Hospital Law . . . is one of the most far-reaching measures in its beneficial effects upon the public health that has ever been enacted."

My father had his own community's interests uppermost in his mind, and he was one of the leaders that same year in an attempt to get the first such county hospital for Clay County. The people there have always prided themselves on their progressiveness and high cultural attainments, and they were not easy marks for the propaganda that was spread by opponents of the plan, but sad to relate, one of the other local physicians did most to persuade them against it, and my father's sacrifice of his own and his family's interests was subjected to criticism. Thus it was that Clay County failed to take the lead.

The citizens of Washington County, Iowa, proved themselves more far-sighted, and after Clay County rejected the hospital proposal, they voted themselves the first county hospital in the United States. Credit for the high standards which have been maintained at the Washington County Hospital from its beginning should go to Clyde A. Boice, M.D. Dr. Boice also had been the real promotor of the hospital plan in Washington County.

Ironically, the first patient admitted to the Washington County Hospital was a Clay County resident, a Mrs. Brodgate, who had become ill while on a visit to Washington.

My father's interest in hospitals, medical ethics, the private practice of medicine, the suppression of cults and the control of nostrum advertising continued throughout the remainder of his 52 years of practice.

INDIVIDUAL MEDICAL PRACTICES

Dr. Charles McAllister, 1840-1913, was an honors graduate of Williams College who took his M.D. at Berkshire Medical College, in Massachusetts. He first practiced with an uncle in that state, then for three years practiced in Dixon, Illinois, and then, after an interval in which he recuperated from an illness, he opened an office in Spencer in 1872. He practiced in Clay County for 40 years, was elected to the state legislature in 1877, where he served with credit, and was otherwise active in civil, business and church affairs.

Dr. Adelbert Henry Bowman, 1851-1923, was born in Wisconsin, attended Cedar Valley Seminary, in Osage, Iowa, and in 1879, received an M.D. degree from Rush Medical College, Chicago. He practiced medicine in Spencer from that year until 1887, when he moved to South Dakota. He retired there in 1906.

Dr. Joseph (Samuel) Charles Collester, 1846-1931, had been christened "Joseph Samuel," but on the army pension records he was mistakenly listed as having the initials J. C., and he changed his name instead of insisting on a correction in the military files. He came to the practice of medicine comparatively late, for he had served as a first sergeant with Company G, Illinois Infantry in 1864-1865, and afterwards had attended high school in Wisconsin and Oberlin College, in Ohio, had been admitted to the Ohio bar, and had served successively as superintendent of schools in Ohio and in South Dakota before entering Hahnemann Medical College in 1887. He graduated from the Chicago Homeopathic Medical College in 1891 and practiced for a year in Redfield, South Dakota, before coming to Spencer to join Dr. Wm. Woodburn. He worked there until 1916, when he moved to Whittier, California.

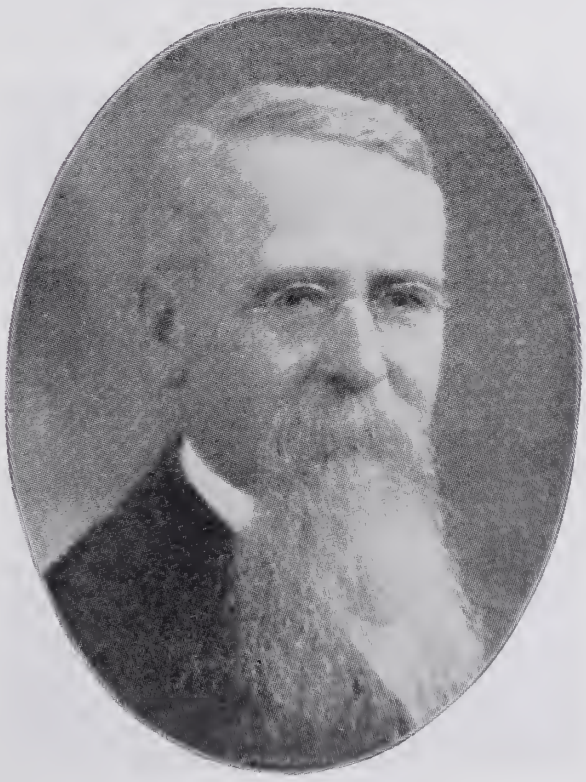
Dr. John Sumner Green, 1829-1920, attended Castleton Medical College, Vermont, and entered upon the practice of his profession in Warren County, New York. Coming to Iowa in 1855, he practiced first in Hardin County and then in Postville, Allamakee County, from 1867 until he moved to Spencer in 1894. In Clay County, he engaged in a limited practice until his death at the age of 92.

Dr. Hiram Otto Green, 1870-1941, one of Dr. John's sons, was a graduate of the St. Louis Physicians and Surgeons College. He practiced in Spencer from 1895 until his death.

Dr. Elbert Ervin Munger, 1847-1946, financed his medical education by working in the composing department of the CHICAGO TRIBUNE, and subsequently, with a partner, published a newspaper in Sidney, Nebraska. Reminiscing about those experiences delighted him, and the training he had gained was reflected in the many medical papers he wrote in later years. He graduated from the S.U.I. medical school in 1894, and practiced more than 50 years in Spencer. To the last month of his life, he continued his lonely agitation for the pres-



Chas. McAllister, M.D.



Joseph C. Collester, M.D.

ervation of the private practice of medicine, he was the author of the Iowa County Hospital Law, and as I have said, he was a leader in the development of rural hospitals from 1908 until his death.

Dr. John Morrison Sokol, 1876-1945, who graduated from Rush Medical College, Chicago, in 1902 and interned at Cook County Hospital there, practiced medicine in Spencer from 1903 until his death. He was Clay County coroner for many years, and was active in the Congregational Church.

Dr. Emery A. Rust, 1880-, graduated from Jefferson Medical College, Philadelphia, in 1904 and practiced for a year in Marathon, Iowa, before moving to Webb, in Clay County, where he has been in general practice ever since. He has been awarded life membership in the Clay County and Iowa State Medical Societies, is a member of the AMA, and is on the staff of the Spencer Memorial Hospital.

Charles Chapman Collester, M.D., F.A.C.S., 1885-1948, was the son of Dr. Joseph C. (or S.) Collester. Though he was born at Pierre, South Dakota, he grew up and attended school in Spencer, and afterwards attended S.U.I. He took his M.D. degree in 1909 at Jefferson Medical College, Philadelphia, and then took training at the Delaware Hospital, Wilmington, and at the Central London Ophthalmic Hospital, at the Royal London Ophthalmic Hospital and at the Golden Square Throat Hospital, also in London. He practiced in Spencer for 35 years, beginning in 1912, was one of the selective service examiners for four years, and was made a fellow of the American College of Surgeons in 1937.

Dr. Andrew George Larson, 1872-, came to America from Sweden at the age of nine, attended school in Spencer, did his pre-med work at Union College, Lincoln, Nebraska, and graduated in 1904 from the American Missionary College, in Battle Creek, Michigan. After serving for seven years as medical missionary in China and taking postgraduate work at the University of Chicago, he began practice in Dickens, in Clay County. He has worked there ever since.

Dr. Eunice Mantz Christensen, 1911-, took her medical degree in 1937 at the College of Medical Evangelists, in California, and interned at Los Angeles County Hospital. From 1944 until 1946 she was a resident in anesthesiology at S.U.I., and was granted an M.S. degree there in the latter year. She has been on the staff of Jane Lamb Hospital, Clinton, and St. Luke's and Mercy Hospitals, Davenport, and is now on the staff of the Spencer Municipal Hospital. Her professional memberships include the AAGP and the American Society of Anesthesiologists.

Dr. Everett Dedrich Christensen, 1910-, likewise took his M.D. at the College of Medical Evangelists in 1937, but interned at the Santa Fe Coast Lines Hospital, in Los Angeles, and served a residency at St. Joseph's Hospital, in Parkersburg, West Virginia, in 1937 and 1938. He took another residency at S.U.I., in general surgery, during the years 1944-1946, and like his wife he practiced in Grand Mound and Davenport before coming to Spencer. He is a member of AAGP.



Emery A. Rust, M.D.



Charles Chapman Collester, M.D.

Dr. Lawrence Desmond Colbert, 1916-, holds a medical degree from Creighton University. He interned at Miller Hospital, St. Paul, in 1942-1943, and holds both Minnesota and Iowa licenses. In the Army Medical Corps between 1943 and 1946, he attended Carlisle Barracks Medical School, served at Camp Stewart, Georgia, was battalion surgeon for the 100th AAA Gn. Bn. in Australia and New Guinea, was transferred to the 108th General Hospital, in Manila, and was discharged as a captain. He practices at Royal, and is on the staff of the Spencer Municipal Hospital.

Dr. Frank Dennis Edington, 1908-, received B.S. and M.D. degrees in 1931 at S.U.I., and interned at Letterson General Hospital, San Francisco, immediately thereafter. He practiced at Strawberry Point, Iowa, for a few months in late 1932 and early 1933, but then served in the peacetime army until 1937. His wartime service extended from 1941 until 1946, and included one year as commanding officer of the 112th General Hospital, in England. He was discharged with the rank of colonel. He is now on the staff of the Spencer Municipal Hospital.

Dr. George Frederick Fieselmann, 1919-, received his A.B. in 1941 and his M.D. in 1943 from S.U.I., and interned at Sacred Heart Hospital, in Allentown, Pennsylvania. In Army service between March, 1946, and March, 1948, he served on Guam as chief of surgery at the 119th General Hospital, and on Iwo Jima as commanding officer of the 22nd Station Hospital. He is now practicing in partnership with Dr. Clare C. Jones, is a member of AAGP and is on the staff of the Spencer Municipal Hospital.

Dr. Lyle Franklin Frink, 1918-, took his M.D. degree at S.U.I. in 1943 and interned at Broadlawns-Polk County General Hospital, Des Moines, thereafter. In the U. S. Army between 1943 and 1946, he accompanied troops during the campaigns on Guam, the Philippines, Keramo, the Retto Islands and Okinawa, and served the occupation forces in Hokkaido, Japan. On his return, he took a residency at Broadlawns in 1946 and 1947, and more recently, in 1955, took training at Cook County Postgraduate Medical School, in Chicago. He practices with Dr. E. O. Schlichtemeier, is a member of AAGP and is on the staff of the Spencer Municipal Hospital.

Dr. Clare Collister Jones, 1906-, graduated from Rush Medical College, Chicago, in 1932, and interned at Illinois Central Hospital. In military service between 1942 and 1945, he was stationed successively at the Marine Corps Base, San Diego; at U.S.N. Mobile Hospital No. 5, in New Caledonia; on the *U.S.S. Hughes;* on *Destroyer No. 410;* on the *U.S.S. Argonne* (in the Solomon and Marshall Islands); and at U.S.N. hospitals in Great Lakes, Illinois, Farragut, Idaho, and Manchester, Washington. Dr. Jones practiced with his uncle, Dr. C. C. Collester until 1948, when Dr. Fieselmann entered into partnership with him. He is on the staff of the Spencer Municipal Hospital.

Dr. Dean Harold King, 1905-, grew up in Spencer, attended Grinnell College, and received his M.D. degree at S.U.I. in 1930. He interned in Providence, Rhode Island, and has practiced in



A. G. Larson, M.D.



Hiram Otto Green, M.D.



John Morrison Sokol, M.D.

Spencer ever since, with the exception of the years 1942-1945, during which he graduated from the School of Aviation Medicine at Randolph Field, Texas, served at posts in Washington, Colorado, Idaho, Puerto Rico and Kansas, and was stationed with a rehabilitation service in North Carolina. He was discharged with the rank of captain.

Elbert Ervin Munger, Jr., M.D., 1898-, enlisted in the U.S. Army at the end of his freshman year at the University of Nebraska, and at the end of World War I resumed his education at the University of Chicago. He took his M.D. degree at Rush Medical College in 1924, and interned at St. Luke's Hospital, Chicago, during the following two years. He practiced with his father in Spencer from 1926 until the elder man's death in 1946. Since then he has worked alone. He did postgraduate work at the Cook County Graduate School of Medicine in 1937, and at the New York University Postgraduate Medical School in 1944.

Ellis Omer Schlichtemeyer, 1918-, took his medical degree at the University of Nebraska College of Medicine in 1944, and interned at Presbyterian Hospital, in Denver. After military service in the Philippines and in Indo China, he practiced for five or six years in Peterson, Iowa. Then, reentering the military, he served between 1952 and 1954 on the *U.S.S. Haven AH-12*, in the Korean Theatre and at the U.S.N. Hospital in San Diego. He took additional training at the Cook County Graduate School of Medicine, Chicago, in 1955, and at the University of Minnesota in 1956, and is now practicing in partnership with Dr. L. E. Frink at Spencer. He is a member of AAGP.

CLAY COUNTY PHYSICIANS SINCE 1871

With Earliest Available Dates of Residence

1871	Marshall M. Himes
1872	Charles McAllister
1872	S. J. Eggleston
1875	I. O. Pond
1876	D. E. Knight
1876	A. K. Frain
1876	Mary Frain
1877	H. C. Crarry
1879	Adelbert Henry Bowman
1879	J. H. Divine
?	B. F. Horner
?	Francis J. Coleman
?	——— Linderman
?	——— Secor
?	——— Westcott
?	J. B. Stair
1882	R. C. McDonald
1883	John Sumner Green
1885	Greely B. Snyder
1886	Allen C. Chatterton
1888	Wm. Woodburn
1890	Geo. Washington Graves
1890	C. M. Coldren
1890	Joseph C. Collester
1891	Wm. Esser
1891	Charles A. Brown
1891	E. D. W. Benthall
1891	J. E. Greene
1894	G. W. Boot
1895	Hiram Otto Green
1895	Daniel S. Jones
1895	Elbert Ervin Munger
1896	Martin W. Page
1896	F. G. Plondke
1897	A. C. Tenney
1900	Thos. Henry Johnston
1901	——— Faulk
1901	——— Shortridge
1902	Chas. Samuel Grabin
1902	John Brooks Wertz
1903	Minerva Porter Wertz
1904	John Morrison Sokol
1905	Emil Albert Buehler
1905	Egbert W. Sproule
1905	J. E. Dunn
1906	Emery A. Rust
1906	James Hugh Bruce
1907	Chas. S. Van Ness
1908	F. J. Coleman
1908	William J. Durant
1908	H. H. Mann
1908	Bruce H. Stover
?	Roscoe C. Campbell
1909	O. P. Ulrich
1910	A. D. Haverstock
1912	A. E. Gage
1912	Charles Chapman Collester
1914	F. D. Schwardtfeger
1914	Benjamin John Voigt
1915	C. C. Winter
1916	E. R. Leonard
1918	Harry Geo. DeGarzon
1919	——— Mahr
1923	G. W. Adams
1924	O. E. Harvey
1924	Edwin Alexander Nash
1924	D. A. Snyder
1926	Elbert Ervin Munger, Jr.
1928	James Murray Fettes
1928	——— Cross
?	Samuel Pratt Free
1932	A. M. Sonneland
1933	Clare Collester Jones
1934	——— Ayres
1936	Andrew George Larson
1937	Frank D. Edington
1938	Troy W. Swallum
1946	Ellis Omer Schlichtemeier
1947	Everett D. Christensen
1947	Eunice M. Christensen
1947	Lyle F. Frink
1948	Lawrence D. Colbert
1949	Ivan Brown
1949	George Frederick Fieselmann

DOCTORS CHOSEN BY CANCER SOCIETY

Dr. Robert C. Hickey, professor of surgery and assistant dean for research at the S.U.I. College of Medicine, was chosen as president-elect of the Iowa Division of the American Cancer Society, at the organization's annual meeting in Des Moines, early in October. Dr. J. R. Dewey, of Schaller, was elected secretary, and Dr. Harold W. Morgan of Mason City, is to continue as chairman of the Board of Directors. Dr. C. W. Seibert, of Waterloo, was president of the organization last year, and has been made a member of the Executive Committee along with Dr. John K. MacGregor, of Mason City, Dr. S. F. Singer, of Ottumwa, and all of the men previously named.

The physicians who are chairmen of standing committees include Dr. Hickey, Research; Dr. Addison W. Brown, Des Moines, Public Education; Dr. Robert W. McConnell, Davenport, Professional Education; Dr. R. F. Birge, Des Moines, Service; and Dr. Kenneth J. Gee, Shenandoah, Scholarships, Study Grants and Loans.

A symposium on exfoliative cytology, presented at the Des Moines meeting, included talks by Drs. Kenneth R. Cross, W. C. Keettel and John L. Fatland, all of Iowa City, and Dr. MacGregor. Dr. Morgan acted as moderator.

Woman's Auxiliary News

OUR PRESIDENT SAYS—

The clamor of Saturday afternoon football around us, the smell of burning leaves in the nippy air, and the hardy chrysanthemums blooming almost alone in our gardens remind us that winter is fast approaching, bringing the holiday season that we all love so much.

Let us pause for a moment to think of how fortunate we are to be living in a land of peace and plenty. Let's think how fortunate we are to have the freedom that we usually take for granted. Let's give thanks that we live in America, and pray that our country will remain strong for generations to come.

The menu for Thanksgiving dinner traditionally includes pumpkin pie. A pumpkin pie is not much good without plenty of good ingredients—milk, eggs, sugar and spices. So with people. They need to be enriched and sweetened and gaily spiced to go down well with their neighbors. Getting along well with the people whom we meet is no less of an art than is the baking of a pumpkin pie. We must master both, for although homemaking is our most important job, we seek opportunities to extend our homemaking to our neighborhoods and beyond in order to pattern a better tomorrow for ourselves, for our loved ones and, indeed, for everyone.

Organizations, like people, have individualities. Our Auxiliary has an attractive one, for it exists not just to provide entertainment for its members; it is a service group devoted to the advancement of community health. We, who are its members, persuade people to read TODAY'S HEALTH so that they may be provided with authentic health information. We actively support safety programs, and cooperate with our public officials in their efforts to make the public safety-conscious. Recruiting young people for paramedical careers is another facet of our Auxiliary's positive program for good community health.

As we add new segments to our Auxiliary's activities, we should be sure to consider the contributions we can make to Civil Defense. Floods, tornadoes, fires, and wrecks bringing injury or death to large numbers of people are constant possibilities wherever we may live, even if one discounts the likelihood of a bombing or an invasion, and the effects of any such disaster can be minimized only through advance planning. To help safeguard today's health for tomorrow, let's find the niche that our Auxiliary can best fill in the Civil Defense mobilization that is already under way.

If our Auxiliary's individuality is to be truly attractive, and if it is to make a real contribution to community health, each member must accept her share of responsibility willingly and cheerfully. All of us depend upon each other; no one can do anything single-handed. Your officers are proposing carefully thought-out projects that deserve your support.

MRS. HERBERT C. MERILLAT
President

WATERCOLOR EXHIBIT

The Des Moines Art Center honored Jessie Loomis, of Waterloo, by inviting her to exhibit her work in its galleries from October 26 through November 23. The display consists of 28 water colors, among which are the original of the mural she painted for Dack Hall, a new building at Allen Memorial Hospital, in Waterloo, and the original of the print of a little windmill, an Iowa landmark, which is being used on the note paper that the Auxiliary is selling for the benefit of AMEF. (Be sure to purchase your package.)

Mrs. Loomis, the wife of Dr. Frederic Loomis, served two years as State Chairman of Exhibits for the Woman's Auxiliary, and she is active in the Black Hawk County Medical Auxiliary.

Some of the pictures that are on display in Des Moines have been borrowed from the homes of Mr. and Mrs. Richard Roth, Dr. and Mrs. R. V. M. Corton and Mrs. Clifford Fox, all of Waterloo.

At a reception in the artist's honor on the opening day of the exhibition, Dr. and Mrs. Craig Ellyson, of Waterloo, were one of the host-and-hostess couples.

FALL BOARD MEETING

The county presidents, councilors, state officers and committee chairmen present in Des Moines, on October 14, at the Fall Board Meeting of the Woman's Auxiliary to the Iowa State Medical Society, heard Dr. Arthur Downing, a Des Moines ophthalmologist, discuss the pre-school vision-screening program that is being introduced in Iowa.

Reports on Auxiliary projects were given by members of the Board, and Mr. Donald Taylor, executive director of ISMS spoke briefly.

A new mental health project was introduced, and November 7 was announced as the date for the Conference of Future Nurses' Clubs, to be held in Waterloo.

COUNTY AUXILIARIES

Marshall

At the meeting of the Marshall County Medical Auxiliary held at Stone's, in Marshalltown, on October 7, Dr. Henry Kosieradzki gave a talk on psychiatry. Mrs. Otis Wolfe and Mrs. Kosieradzki were introduced as new members.

Page

The Woman's Auxiliary to the Page County Medical Society were hostesses to a district meeting on Wednesday, September 17, in Shenandoah. It was held in conjunction with the Annual Fall Conference of the County Medical Society.

During the afternoon session at the Shenandoah Country Club, the 4-H Ever-Ready Club of East Walnut put on a very interesting and informative series of demonstrations. Jane Schlick and Susan Foster presented "Let Color Sing"; Linda Tyler and Annette May presented "Home Beautification"; and Karen Teachout and Natalie Gee presented "Out of the Past Into the Present." Previously, these girls' work had won them blue and purple ribbons at the county and state fairs. One of the girls is the daughter of one of our members, Mrs. Kenneth Gee. The leaders of the 4-H group are Mrs. Wayne Stevens and Mrs. Robert Tyler, and the program chairmen for the Auxiliary were Mrs. Stuart Ramsdell and Mrs. Robert Powell. About 20 women were present.

Afterward, Mrs. Arnold Wirsig entertained the group at her lovely home. There, Mrs. Hans S. Frenkel, the Page County president, introduced Mrs. H. C. Merillat, the state president, who gave a short, inspirational message emphasizing the obligations of a doctor's wife to the Auxiliary.

In the evening, the Auxiliary members joined their husbands for a social hour and dinner in the dining hall of the Country Club.

Some additional news notes:

Dr. and Mrs. John Eisenach, of Shenandoah, are the proud parents of a baby girl born in late August. They have three sons.

Allen Frenkel, son of Dr. and Mrs. H. S. Frenkel, entered S.U.I. this fall as a pre-med freshman.

Miss Gail Flynn, daughter of Dr. and Mrs. Charles H. Flynn, of Clarinda, has enrolled for her senior year at Nebraska Wesleyan University, in Lincoln.

Polk

The Woman's Auxiliary to the Polk County Medical Society met for luncheon at the Airport Cloud Room, in Des Moines, on October 10. The topic of the day was the prevention of blindness. The film "Betty Sees a Bird" was shown, and Dr. Arthur Downing, a Des Moines ophthalmologist, talked to the group. Mrs. John Bakody, the chapter president, presided at a short business meeting.

From October 13 through 18, the Polk County Auxiliary held its Handicapped Crafts Sale in the foyer of Younkers'. Mrs. Ralph E. Hines was chairman, and Mrs. Edmund T. Burke, co-chairman.

SUPPORT YOUR AUXILIARY!

1. Pay your dues.
2. Attend meetings.
3. Volunteer to help on committees.
4. Offer helpful suggestions.

STATE PRESIDENTS' CONFERENCE

The fifteenth annual State President's Conference of the Woman's Auxiliary to the American Medical Association was held on October 6, 7 and 8, at the Drake Hotel, in Chicago.

Auxiliary workshops on program-planning began on Monday morning with discussions of AMEF, TODAY'S HEALTH, Careers Recruitment, Membership, Mental Health, Legislation, and Civil Defense. Speeches, panel discussions and films on safety and on community service rounded out the comprehensive program.

The speaker at the luncheon on Monday was Dr. F. J. L. Blasingame, executive vice-president of the AMA, and his topic was the proposed reorganization of the national physicians' association. The featured speaker at the Tuesday luncheon was the president of the AMA, Dr. Gunnar Gundersen. He spoke on the World Medical Association.

The state presidents, presidents-elect, committee chairmen and other officers present represented the 79,000 members of the National Auxiliary.

HOW LONG HAS IT BEEN?

If news of your county Auxiliary hasn't appeared recently in these columns, it's not because we haven't wanted it to do so. We'd like to publish something about your group in every edition. Please send us your items of interest.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 116 Lincoln Place Drive, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 307 49th St., Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

Blue Shield States Its Case

Your Blue Shield Board and How It Grew

TOM D. THROCKMORTON, M.D.

DES MOINES

"EVERY TIME we put a new man on the Blue Shield Board, he becomes a dag-gummed convert!"

That remark was made about me, shortly after my election to the Board, and I have heard it made about other Blue Shield directors, past and present. It is interesting, for it implies that time and again the speaker has hoped that the physician recently added to the group would become a leader in radically changing the organization or even in abolishing it. And furthermore, the remark constitutes a grudging recognition that Blue Shield's purpose and scope of activities make an evangelist out of every doctor who has been persuaded to acquaint himself fully with them.

What sort of organization is Blue Shield? Since it has the ability to make strong-willed men change their convictions, it must be something special. And who are the men now serving as its Board of Directors?

A CORPORATION THAT IS MORE THAN A CORPORATION

Iowa Medical Service (Blue Shield) is a nonprofit Iowa corporation created by a special enabling act of the General Assembly of Iowa to dispense a "service" type of health insurance. Now, a corporation is usually regarded as a legal fiction without a heart or soul, though its affairs are managed by "a number of natural persons acting under special rules of agency or representation, and governed by special rules of succession," but such a description fails to fit Blue Shield satisfactorily. Certain modern law writers have espoused the *anthropomorphic theory,* according to which a corporation is regarded as having a personality other than the sum or least common denominator of its directors' personalities. Surely, Iowa Medical Service is such a corporation, for it actually possesses the human characteristics, good and bad, that are so frequently ascribed to it. This very "corporate personality" is what has made working with Blue Shield so utterly fascinating—and so devilishly difficult.

There is a something about the organization which provides its own spark of leadership and which, if given an opportunity, turns every skeptic into a zealous apostle. This corporate personality cannot be ignored, but neither can it be allowed autonomy. Thus, the energies of the Blue Shield movement are contained and restrained, as well as implemented and amplified, by the Board of Directors.

PRESENT MEMBERSHIP OF THE BOARD

The Articles of Incorporation and By-Laws of Blue Shield provide for a governing board of not to exceed 25 persons. Of those 25 members, 20 must be participating physicians. One physician member is elected to the Board from each of 11 Blue Shield districts—areas comparable to the councilor districts of the Iowa State Medical Society. Also, there is a provision for the election of members-at-large, and most important are the provisions for the choosing of lay members of the board.

The following comprise the present membership:

District 1, *Ralph M. Dahlquist, M.D., 120 Bridge Street, Decorah.* Dr. Dahlquist, who was elected to the Blue Shield Board in July, 1958, is a general practitioner in one of the sections farthest distant from Des Moines. Both on State Medical Society matters and on Blue Shield affairs, we have heretofore been relatively inefficient in disseminating information there, but with Dr. Dahlquist's help we are now doing a very good job. He is the ISMS councilor from the First District, is a member of the ISMS Executive Council, and has been a member of the ISMS Grievance Committee.

District 2, *H. G. Marinos, M.D., 119 Medical Arts Center, Mason City.* Dr. Marinos, who was

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This is the second of a series of articles discussing health insurance problems. The papers are intended to provide a broad, factual base for really informed opinion.

Participation in Blue Shield requires certain responsibilities of its members. (1) They must keep informed. (2) They must actively search out informed and dedicated persons to direct Blue Shield affairs. (3) They must learn not to use Blue Shield as a buffer between disagreeing segments of the medical profession. (4) They must come to realize that Blue Shield is regulated by insurance laws and principles. (5) They must rededicate themselves to the service principle on which Blue Shield was founded. (6) They must believe in Blue Shield and make the weight of their ideals and their morality felt in determining its aims.

elected in April, 1957, is an outstanding internist and holds memberships in several specialty organizations. He has served on the ISMS House of Delegates Reference Committee on Insurance and Medical Service.

District 3, *Dean H. King, M.D., Box 832, Spencer.* Dr. King, elected in April, 1956, is a general practitioner who has given much of his time and of himself to organized medicine. He is the ISMS Third District councilor, is a member of the ISMS Executive Council and has served as a member of the ISMS House of Delegates Reference Committee on Articles of Incorporation and By-Laws.

District 4, *R. H. McBride, M.D., 1502 Pierce Street, Sioux City.* Dr. McBride, elected to the Blue Shield Board in April, 1956, is a pediatrician. He is a member of the ISMS Committee on Public Health, is chairman of the Subcommittee on Maternal and Child Health, and was chairman of the Subcommittee on Polio during the introduction of the Salk vaccine.

District 5, *Charles J. Baker, M.D., 403 Carver Building, Fort Dodge.* Dr. Baker, a pediatrician, was elected to the Blue Shield Board in April, 1957. Although a comparative newcomer to the Board, he has learned about the organization from the ground up. He is personally interested in it, he has asked for a great deal of information, and when answers to his questions weren't forthcoming, he has helped to find them. He is chairman of the ISMS Committee on Patient Care, he has been a member of the Committee on Articles of Incorporation and By-Laws, and he has served on the House of Delegates Reference Committee on Legislation and Public Relations.

District 6, *J. W. Billingsley, M.D., 622 S. Fifth Avenue W., Newton.* Dr. Billingsley was elected to the Blue Shield Board in January, 1945, and has served as its vice president since 1955. "Dr. Bill" is one of the founding fathers of Blue Shield, a representative of that original hard core that made it work, and made it work properly. He has done general surgery, and currently has an especial interest in anesthesiology. Besides being president-elect of the Iowa State Medical Society, he is a member of the ISMS Executive Council and is or has been a member of the following ISMS committees: Scientific Work, Legislation, Exfoliative Cytology, Blue Shield Liaison, Patient Care, Woman's Auxiliary Advisory, Doctors' Assistants Advisory, and Plan and Scope. He is a member of the ISMS Board of Trustees and is a member of the Iowa State Board of Medical Licensure. I am not certain what he does with his spare time.

District 7, *George M. Wyatt, M.D., Mercy Hospital, Iowa City.* Dr. Wyatt, a radiologist, was elected to the Blue Shield Board in July, 1958. As one accustomed to looking at shadows, he has carefully scrutinized the operation of Blue Shield on the local level and has pointed out many defects. Likewise, he has suggested remedies for them. Obviously, he is going to do a good job as a Board member.

District 8, *H. M. Hurevitz, M.D., 1607 Jersey Ridge, Davenport.* Dr. Hurevitz, who was elected in April, 1957, is a fine internist, and as such effectively represents his colleagues. But more effectively, he represents Blue Shield to his specialty colleagues and to all of the doctors in his councilor area.

District 9, *G. W. Bennett, M.D., 121½ Market Street, Oskaloosa.* Dr. Bennett is a general practitioner who was elected to the Blue Shield Board in April, 1956. He has been helpful to Blue Shield through his special interest in orthopedic surgery. He has served on the ISMS House of Delegates Reference Committee on Reports of Officers.

District 10, *Robert H. Kuhl, M.D., Creston Medical Clinic, Creston.* Elected in July, 1958, Dr. Kuhl is representative of the outstanding young general surgeons coming into the state. He has an active and inquiring mind, and his attitudes presage a valuable addition to the Blue Shield Board. He works! He is also a member of the ISMS Committee on Articles of Incorporation and By-Laws.

District 11, *H. W. Mathiasen, M.D., 321 Park Avenue, Council Bluffs.* Dr. Mathiasen is a general practitioner who was elected to the Blue Shield Board in April, 1955, and as a generalist he has remained sensitive to the attitudes and requirements of his associates. He has also been a strong advocate of Blue Shield, and is a notable example of the fact that really good lines of communication must run in two directions. The fact that he is held in high regard by his fellow Board members is evidenced by his election, in 1956, to the office of treasurer of Blue Shield. He is also an ISMS alternate delegate to the AMA, is a member of the ISMS Blue Shield Liaison Committee, and is chairman of the State Society's Committee on Nursing Education and Service.

DIRECTORS-AT-LARGE

Martin I. Olsen, M.D., Box 1555, Des Moines, was elected to the Blue Shield Board in 1945 and has been the president of the organization since that time. Besides being "Mr. Blue Shield," Dr. Olsen has brought to the Board his knowledge as an internist, and as the medical director of the Central Life Assurance Company. Because of his special skills, he was drafted to direct the activities of Blue Shield from the start. This he has done with conspicuous success. As a token of its deep appreciation for Dr. Olsen, the Blue Shield Board has created the office and title of President Emeritus, which he will assume as of January 1, 1959.

William B. McGahey, M.D., 703 Division Street, Webster City, was chosen as director-at-large in July, 1958. He is a general practitioner. His opportunities in Blue Shield are yet ahead of him, but his immediate past performance has shown him sound and capable. Besides being a member of

the Blue Shield Board, he is a member of the ISMS Subcommittee on Veterans' Affairs.

William O. Purdy, M.D., Equitable Life Insurance Company of Iowa, Des Moines, was elected in May, 1957. As medical director of Equitable of Iowa, he brings to Blue Shield a tremendous experience in the field of underwriting. He is already deep in a reevaluation of some of our most difficult "subscriber groups," and as a result of his efforts, Blue Shield is going to come up with something for the "over-65 group" that has had everybody guessing and worrying.

Tom D. Throckmorton, M.D., Doctors' Park, 1407 Woodland Avenue, Des Moines 14. I am a general surgeon, and I was elected in July, 1955. Up until now, my job has been to understudy Dr. Olsen and to serve as executive vice-president and chairman of the Executive Committee of Blue Shield. I am resigning those positions as of January 1, 1959, but shall continue as a member of the Executive Committee, and also as a member of the ISMS Blue Shield Liaison Committee, of the board of Des Moines Blue Cross, and of the ISMS Subcommittee on Prepayment Medical Care.

Mr. P. C. Irwin, Equitable Life Insurance Company of Iowa, Des Moines. "Phil" Irwin is vice-president and actuary of the Equitable of Iowa, and he was elected to the Blue Shield Board in January, 1945, as one of the original members. He has given generously of his time and talents. Furthermore, he has had a long look at the seamy side of medicine, and he still likes us doctors. As vice-president of the Blue Shield, he vigorously represents the rights and privileges of the subscriber. He has helped to keep your Blue Shield plan in a position which any actuary knows is really impossible of achievement—the position of being actuarily sound. Thus, Mr. Irwin is a really essential Blue Shield Board member!

Mr. W. F. Poorman, Box 1555, Des Moines, president of the Central Life Assurance Company, was elected to the Blue Shield Board in January, 1945, and has been secretary of the organization ever since then. He is another one of the actuaries who read the crystal ball in terms of today's premiums. He has been wonderfully loyal and dedicated to the interests of Blue Shield—a man of vast insurance experience. He is ready to try a new tack, and yet vigilant in seeing that we don't lose our shirts. One can't buy his kind of talent; it's free, but we must never take it for granted.

Mr. J. S. Russell, Register and Tribune Company, Des Moines 4, was elected to the Blue Shield Board in July, 1958. "Jim" represents the people —all of the people! He lives in the city, but is the farm editor for the REGISTER AND TRIBUNE and can "talk crops" in India or in Indianola. Honest, sincere and forthright, he represents a great fund of "common knowledge." In his spare time, he is also a member of the Board of Governors of the Federal Reserve Bank of Chicago.

Earl Lowry, M.D., 324 Liberty Building, Des Moines 9, was appointed to the Blue Shield Board in October, 1958, to fill the seat that will become vacant as of January, 1959. He will then become president and medical director of Iowa Medical Service.

During the past several years, it has become obvious that the problems and difficulties of Blue Shield grow in proportion to the square of its size. Now that the operation has begun to gross more than $8,000,000 annually, the administration of its medical aspects has become a full-time job. Earl Lowery brings a full-size experience to cope with that full-time problem. He is a urologic surgeon; he has a remarkable administrative background; and for the past two years, with Dr. Paul I. Robinson, has been charged with the responsibilities of the Medicare program. Both Dr. Robinson and Dr. Lowery believe deeply in the private-enterprise, fee-for-service practice of medicine. Dr. Robinson is now associated with a commercial insurance company, and Dr. Lowery has decided to come with us.

From now on, in negotiations between participating physicians and Blue Shield, doctor will deal with doctor. Dr. Lowery has given up a very real career to cast his lot with Iowa Medical service because he frankly believes prepayment medical care is the newest "medical specialty"—and because he likes the way in which Iowa Blue Shield practices it.

DIRECTORS REPRESENTING ISMS

Francis C. Coleman, M.D., Mercy Hospital, Des Moines 14, was appointed to the Blue Shield Board in October, 1956, by virtue of his chairmanship of the ISMS Committee on Legislation. He brings to Blue Shield one of the most agile, orderly and informed minds in the business. "Frank" Coleman has, from the outset, insisted that Iowa Medical Service live up to its potentialities. After January 1, 1959, when he is to become chairman of the Executive Committee of the Blue Shield Board, your insurance plan will have taken another long step in the right direction. Dr. Coleman, in addition to his work on the Legislative Committee, is a member of the ISMS Committee on Exfoliative Cytology and of the Plan and Scope Committee.

William C. Eller, M.D., 325 Locust Street, Waterloo, is an obstetrician and gynecologist who was appointed to the Blue Shield Board in October, 1956. He has made an outstanding contribution to its work by virtue of his being chairman of the ISMS Fee Committee and a member of the State Society Committees on Medical Service and Prepayment Medical Care. Usually, "Bill" Eller has already penetrated to the heart of a problem while some of the rest of us are still sparring with peripheral inconsequentialities. Long before he began bargaining with Medicare, he was bargaining for your Blue Shield.

REPRESENTATIVES OF THE HOSPITALS AND BLUE CROSS

Mr. Leon Bondi, St. Luke's Hospital, Davenport, was elected to the Blue Shield Board in April, 1956. He is the administrator of St. Luke's, and has been president of the Iowa Hospital Association. He is a valuable, sincere and vigorous board member whose knowledge of hospitals and of the men who run them has more than once bridged a gap before which the Blue Shield operation had ground to a halt. Leon Bondi is a "doer," and he believes that knowledge is a product of communication.

Mr. A. O. Lothringen, 107 Security Building, Davenport, is a trust administrator who was elected to the Blue Shield Board in April, 1951. He is the president of Des Moines Blue Cross and a trustee of St. Luke's Hospital, Davenport. His administrative capabilities, reenforced by a very real and deep knowledge of hospital insurance, have made "Jack" Lothringen a tremendous asset to Blue Shield. This man is not easily satisfied, but once convinced, he is an ardent advocate—and he seldom, if ever, forgets the subscriber.

James E. Reeder, Jr., M.D., 533 Davidson Building, Sioux City, was elected in April, 1956, to represent Associated Hospitals Service, Inc., the Sioux City Blue Cross Plan, on the Board of Blue Shield. Dr. Reeder, an E.E.N.T. specialist, is a member of the Board of Directors of Sioux City Blue Cross and, as such, serves in a liaison capacity. He has been a member of the ISMS Subcommittee on Interprofessional Activities.

HOW BOARD MEMBERS ARE CHOSEN

The present Blue Shield Board of Directors is a good one. The membership is representative of geographical areas, types of practice, men wise in the ways of insurance, and men staunch in their support of the interests of subscribers. I cannot conceive of this Board's operating by whim or fancy; I cannot conceive of this Board's becoming dictatorial or developing a "Jehovah complex"; and—most important—I cannot conceive of this Board's failing to rectify any of its mistakes, if it were humanly possible to do so.

Now that each of us has been introduced to the members of his Blue Shield Board, what is the mechanism by which these men attained office? What measure of control do we exert to make certain that the direction of Iowa Medical Service may continue in strong, clean, capable hands? The answer to these questions is *the ballot!*

Until recently, the election of members to the Blue Shield Board was by ballot at the Blue Shield Annual Meeting, which was held at the time of the Annual Meeting of the Iowa State Medical Society. At first glance, that may seem to have been a satisfactory arrangement, but after a long, hard look, the disadvantages became apparent:

1. The vote was restricted to those in attendance at the Annual Meeting. Often, the interest in Blue Shield was barely sufficient to provide a quorum. I remember that on more than one occasion a strict canvass of the premises was necessary to turn up the necessary number of members. The greatest attendance, as I recall it, was provoked by the anticipation of friction, fire and smoke, and then it totaled only 110 doctors. Thus, even at best, not more than 5 per cent of the members of Blue Shield exercised their right of ballot. About 95 per cent disenfranchised themselves, and though their action was voluntary in most instances, it did not seem that Blue Shield elections were good examples of democracy in action.

2. During the Annual Meeting of the Iowa State Medical Society, the affairs of Blue Shield were continually involved in the machinations and maneuverings that physicians call "politicking." An atmosphere of "You scratch mine and I'll scratch yours" was not the climate most conducive to reasoned thinking about candidates for election to the Blue Shield Board.

3. The Blue Shield Board served as the nominating committee, and though nominations from the floor were invited and indeed encouraged, there still was at least a theoretical basis for an occasional charge that the Board was "self-perpetuating." That charge, I am convinced, was brought only by members who took some delight in watching board members jump, for there were no real grounds for it.

4. The problem of whether or not to permit voting by proxy was in the air, but there seemed to be no satisfactory method for handling such balloting.

These disadvantages disturbed the Board, and in an attempt to extend the franchise to all participating physicians, and in order to provide a more favorable climate for proceedings and to make for a more studied scheme of nomination, extensive changes were wrought in Blue Shield's Articles of Incorporation and By-Laws. They are as follows:

1. A liaison committee was appointed, consisting of representatives of the official family of the Iowa State Medical Society and the Blue Shield Board. It consists of three members from each body, and it serves as a nominating committee. When a Board seat for a certain geographic area is to be filled, the ISMS councilor for that district appears before the liaison committee and expresses the will and pleasure of his constituents. Multiple possibilities are invariably expressed, but unanimous agreement is finally reached on a single candidate. Only one nomination for each vacancy is made. Actually, only minor differences exist regarding the candidates under discussion, and experience has taught that regardless of how kind-hearted and public-spirited a person may be, *no one* really likes to be placed in the position of the straw man on a ballot.

When a vacancy is to be filled by choosing a representative of a hospital or hospitalization insurance group, multiple suggestions are requested

from the affected organization, and the liaison committee chooses one of the individuals suggested.

2. The nomination or nominations of the joint committee are approved by the Blue Shield Board, and a mail ballot is prepared. This ballot is accompanied by a short biographical sketch of each candidate.

3. Should a segment of the members take issue with the proposed "slate," and feel that their interests or those of their patients would not be properly represented by one of the proposed candidates, there are means available for nomination by petition. Such a candidate, and his sketch, are then made a part of the mail ballot.

4. Each member's mail ballot is identified by his Blue Shield code number to facilitate final checking and to prevent duplication. If the member desires to vote in person at the Annual Meeting, his vote is counted in with those of members who have sent theirs by mail.

5. The date of the Blue Shield Annual Meeting was changed to the last Sunday in July, but a "stockholders' meeting" is still held during the ISMS Annual Meeting, at which discussion, bear-baiting and other means of "getting it off the chest" are altogether in order. Grievances and suggestions presented at that meeting are subsequently given rigorous examination by the Board, but grievances no longer can be influential in determining which men are to manage your insurance corporation.

CONCLUSION

I have tried in this report to acquaint you with the roster of your Blue Shield Board of Directors, and to tell you how it grew. My fellow board members are an utterly fascinating group of personalities, each of them possessing special abilities and an individual set of convictions, but they are welded—insofar as Blue Shield is concerned—into a well-balanced, dynamic entity. This welding has been accomplished, not by the heat of friction, but by expansion against pressures. These pressures are legion: How can we insure the aged, and how can we reconcile the conflicting interest and desires of groups and individuals, labor and management, generalist and specialist? What can we do about intraprofessional imponderables such as the proper division of fees, extraprofessional ones such as the proper dividing line between dentistry and medicine, and just plain imponderables such as whether or not a physician is justified in billing Blue Shield for services he has rendered to himself.

Thus, Blue Shield Board members are not a herd of cattle, drifting with their rumps to the storm. On the contrary, they are facing up to your problems with an aggressive, united front. This Board has developed a corporate personality which is greater than the sum of its parts. This personality has an almost breathless quality, as if there were far too little time to do a job that must be done. This quality is infectious, but *understanding* is the only portal of entry. Perhaps becoming a member of this Board is a little like being hypnotized, in that if one actively wills the success of the procedure, presto! it is accomplished. But unlike hypnotism, participation in the work of the Blue Shield Board is an escape into reality!

Blue Shield was our idea. It is the only tangible evidence of unity that the physicians of Iowa can offer to the citizens of Iowa. We must make it work!

Somewhere, sometime, some one said, "Evil happens when good people sit around and do nothing."

Shift in Cancer Mortality

The statisticians of the Metropolitan Life Insurance Company have reported a definite shift in cancer mortality among industrial policyholders in the last 15 years. During this period, with figures based on a comparison of the rates experienced in 1936-1940 and in 1951-1955, the death rate from neoplastic disease has increased 8 per cent for males and decreased 15 per cent for females. Interestingly enough, the considerable decrease in the female rate among policyholders is much more favorable than in the general female population of the nation, presumably because the insured persons are mostly city dwellers, with better access to medical facilities. The shift is more spectacular in the latter period analyzed, in which the cancer mortality among men exceeded that among women by 29 per cent. At the beginning of the period there was almost no difference.

Two important changes represent the main factors in the shift: a reduction of 27 per cent in the mortality from cancer of the reproductive organs in women, and an increase of 140 per cent in the death rate from cancer of the respiratory tract in men. The latter has risen from 9.8 per 100,000 in the earlier period studied to 23.8 in 1951-1955—an increase from a ninth to a fourth of the total cancer death rate among insured males, eight times that reported for females. The improvement in the rate from cancer of the reproductive system in women is attributed to better preventive measures, including better obstetrics, and to early diagnosis and treatment.

Leukemia and Hodgkin's disease have increased in both sexes.

—Editorial, NEW ENGLAND J. MED., 259:987-988. (Nov. 13) 1958.

Coming Meetings

In State

Dec. 6-7	**First Iowa Industrial Health Conference.** Savery Hotel, Des Moines
Dec. 9-11	**Surgery.** University Hospitals, Iowa City
Dec. 9-10	**Surgery (SUI College of Medicine).** University Hospitals, Iowa City
Jan. 14	**Obstetrics & Gynecology (SUI College of Medicine and the Bureau of Maternal and Child Health of the State Department of Health).** University Hospitals, Iowa City

Out of State

Dec. 1-5	**Surgery of Colon and Rectum.** Cook County Graduate School of Medicine, Chicago
Dec. 1-5	**Surgery of the Cornea.** N.Y.U., N.Y.C.
Dec. 1-12	**Diagnostic X-Ray.** Cook County Graduate School of Medicine, Chicago
Dec. 1-12	**Fractures and Traumatic Surgery.** Cook County Graduate School of Medicine, Chicago
Dec. 1-12	**Surgical Technic.** Cook County Graduate School of Medicine, Chicago
Dec. 2-5	**American Medical Association, Clinical Meeting.** Hotel Leamington, Minneapolis
Dec. 3	**Physiological and Clinical Consideration on the Endocrine System.** U.C.L.A., Los Angeles
Dec. 3-6	**Ophthalmology, External Diseases.** U. of California, San Francisco
Dec. 4	**Psychiatry and Neurology.** U. of Nebraska College of Medicine, Omaha
Dec. 5-6	**Peripheral Vascular Disease.** U.C.L.A., Los Angeles
Dec. 6-7	**Mid-West Forum on Allergy.** Sheraton-Cadillac Hotel, Detroit
Dec. 6-11	**American Academy of Dermatology and Syphilology.** Palmer House, Chicago
Dec. 7-9	**Disturbances in Gastrointestinal Motility.** U. of California, San Francisco
Dec. 9-11	**Southern Surgical Association.** Boca Raton Club and Hotel, Boca Raton, Florida
Dec. 10	**The Selection of Patients for Cardiovascular Surgery.** U. of Oklahoma Medical Center, Oklahoma City
Dec. 12-13	**Association for Research in Nervous and Mental Diseases.** Hotel Roosevelt, New York City
Dec. 12-13	**Fractures.** U.C.L.A., Los Angeles
Dec. 12-13	**Symposium on Glaucoma.** U. of Kansas School of Medicine, Kansas City, Kansas
Dec. 12-13	**Vascular Surgery.** U.C.L.A., Los Angeles
Dec. 15-16	**Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Dec. 17	**Physiological and Clinical Aspects of the Gastrointestinal Tract.** U.C.L.A., Los Angeles
Dec. 19-20	**Athletic Injuries.** U.C.L.A., Los Angeles
Dec. 29-Jan. 17	**Bahamas Surgical Conference.** British Colonial Hotel, Nassau, Bahamas
Jan. 4-7	**International College of Surgeons, Southeastern Regional Meeting of the United States Section.** Americana Hotel, Miami Beach
Jan. 5-7	**Otolaryngology for General Physicians.** U. of Minnesota, Minneapolis
Jan. 5-7	**Tenth Annual Postgraduate Course in Medical Technology.** U. of Kansas Medical Center, Kansas City, Kansas
Jan. 6-16	**Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid (Dept. of Otolaryngology of the College of Medical Evangelists and the U. of Southern California School of Medicine.** White Memorial Hospital, Los Angeles
Jan. 7	**Physiological and Clinical Considerations of Respiration.** U.C.L.A., Los Angeles
Jan. 9-10	**Chest Disease Symposium (Tuberculosis and Health Association of Los Angeles County).** Hotel Statler, Los Angeles
Jan. 12-16	**Internal Medicine, Especially Therapeutics (American College of Physicians).** Illini Union Building, U. of Illinois College of Medicine, Chicago
Jan. 14	**Midwinter Symposium on Heart Disease (Los Angeles County Heart Association).** Hotel Statler, Los Angeles
Jan. 14	**Pediatrics, Diagnosis and Management of Heart Disease in Infancy and Childhood.** U. of Oklahoma Medical Center, Oklahoma City
Jan. 14	**Physical and Clinical Aspects of Respiration.** U.C.L.A., Los Angeles
Jan. 15-16	**Obstetrics & Gynecology (U. of Nebraska College of Medicine and Division of Maternal and Child Health, Nebraska State Health Department).** U. of Nebraska College of Medicine, Omaha
Jan. 15-17	**Newer Drugs in General Practice.** U. of Minnesota, Minneapolis
Jan. 16-17	**Dermatology.** U. of California, San Francisco
Jan. 16-18	**Annual Meeting, Southern California Chapter, American College of Surgeons.** Coronado Hotel, Coronado
Jan. 19-20	**Symposium on Pulmonary Disease.** U. of Kansas School of Medicine, Kansas City, Kansas
Jan. 19-21	**Sectional Meeting, American College of Surgeons.** Francis Marion Hotel, Charleston, South Carolina
Jan. 19-23	**Neuro-Ophthalmology.** N.Y.U., N.Y.C.
Jan. 19-24	**General Practice Review.** U. of Colorado School of Medicine, Denver
Jan. 21	**Symposium on Chest Diseases (Long Beach Cancer and Heart Associations and TB and Health Associations, Cosponsors).** LaFayette Hotel, Long Beach
Jan. 21	**Physiological and Clinical Considerations of the Kidney.** U.C.L.A., Los Angeles
Jan. 21-22	**Symposium on Gastroenterology.** U. of Kansas School of Medicine, Kansas City, Kansas
Jan. 22-24	**Seventh Annual Cancer Seminar, Arizona Division of the American Cancer Society.** Paradise Inn, Phoenix
Jan. 22-24	**Surgery for Surgeons.** U. of Minnesota, Minneapolis
Jan. 23	**Seventh Annual Central California Cardiovascular Symposium (Fresno County Heart Association).** Fresno Memorial Auditorium, Fresno, California
Jan. 23	**Symposium on the Ophthalmoscope: Its Use in Medicine.** U. of Kansas School of Medicine, Kansas City, Kansas
Jan. 23-24	**American Society for Surgery of the Hand.** Palmer House, Chicago
Jan. 24	**Adolescents.** Children's Hospital, U. of California, San Francisco
Jan. 24	**Annual Symposium on Heart Disease, Orange County Heart Association.** Disneyland Hotel, Anaheim, California
Jan. 24-29	**American Academy of Orthopaedic Surgeons.** Palmer House, Chicago
Jan. 25-27	**Pharmacologic Approach to the Study of the Mind.** U. of California, San Francisco
Jan. 25-29	**Rocky Mountain Traumatic Surgical Association.** Aspen, Colorado
Jan. 26-28	**International Medical Assembly of Southwest Texas.** Gunther Hotel, San Antonio
Jan. 27-30	**American Protestant Hospital Association.** Jefferson Hotel, St. Louis
Jan. 28-29	**Symposium on Endocrinology and Metabolism.** U. of Kansas School of Medicine, Kansas City, Kansas
Jan. 29-31	**Western Society for Clinical Research.** Carmel-by-the-Sea, California
Jan. 30-31	**Seattle Surgical Society.** Seattle, Washington
Jan. 31-Feb. 1	**Eleventh Annual Midwinter Radiological Conference (Los Angeles Radiological Society).** Statler Hotel, Los Angeles

Scientific Articles

Tissue Cultures in The Diagnosis of Enterovirus Infections

TOM D. Y. CHIN, M.D.

KANSAS CITY, KANSAS

In the last several years, tremendous strides have been taken in the study of viruses, principally through the development of new technics of tissue culture and the widespread application of those technics in the study of these microorganisms and the diseases which they cause. It is now possible not only to propagate a great many viruses by the *in vitro* method but also to isolate and identify them by methods so relatively simple, rapid and inexpensive as to enable standard bacteriological laboratories to do the work on a practical basis. With the continuing improvement and simplification of tissue-culture technics, moreover, the virologist can now play an increasingly significant role in assisting the practicing physician in the diagnosis of virus infections.

It is the purpose of this paper to review briefly the methods of tissue culture, and to discuss the application of these methods in the diagnosing of infections caused by a group of agents collectively referred to as enteroviruses,[1] which include polio viruses, Coxsackie viruses and ECHO viruses.

PRINCIPLES OF TISSUE CULTURE

The tissue-culture diagnoses of virus infections are based on two general principles: (1) recovery and identification of the responsible agent from clinical specimens, and (2) demonstration of a significant rise of specific antibody during convalescence.

Various human and animal tissues may be used in the preparation of tissue cultures. The ones that now are commonly in use for diagnostic work include monkey kidney epithelial cells, human amnion cells, HeLa cells (derived from a human carcinoma of the cervix), and KB cells (derived from a human carcinoma of the mouth). Both monkey kidney and human amnion cells are prepared from tissues in primary cultures; HeLa and KB cells are prepared from continuous cultures maintained in serial passage.

In the past, *in vitro* cultivation of viruses was accomplished in tissue fragments suspended in nutrient medium or embedded in plasma clot. The present methods, however, employ dispersed cells in the form of contiguous cell sheets about one cell thick (monolayers) or in the form of dispersed cells suspended in nutrient medium. The monolayer type of culture is usually grown in a roller-tube, and is generally used for virus isolation, whereas the latter type of culture is used for quantitative antibody determination.

To prepare roller-tube cultures, one first disperses the cells into suspension by treating them with trypsin. Small volumes of cell suspension are distributed into roller tubes, and incubated in the stationary position. After several days of incubation, the cells grow out in a single sheet on the inner surface of the tube. These cells, with nutrient medium added to maintain their viability, constitute the culture system for virus studies.

For virus isolation, specimens such as stools, throat washings or samples of cerebrospinal fluid are inoculated into a series of culture tubes and incubated at 37°C. The culture tubes are examined periodically under the microscope during periods of from seven to 10 days. Virus multiplication is recognized by the presence of a characteristic cellular degeneration or cytopathogenic effect. The infected cells appear rounded, granular and shrunken, and eventually the affected cells detach from the glass surface and fall into the culture fluid. This infected fluid that con-

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tains the liberated virus is then "harvested" for specific identification.

The unknown virus is identified by neutralization or "typing" with known hyperimmune sera which have been prepared by inoculating known viruses into laboratory animals. After mixing the test virus with each antiserum, the investigator inoculates the virus-serum into a series of tissue culture tubes and observes the cells for cytopathogenic changes. An inhibition of cytopathogenic effect indicates that the test virus has been neutralized by the type-specific antiserum, thus reflecting the immunologic type of the virus.

Quantitative estimation of the neutralizing antibody in acute and convalescent sera can also be performed with monolayer tissue cultures. The principle of the test is likewise dependent on the capacity of the specific antibody present in the serum to inhibit the cytopathogenic action of the homologous virus. In the test, a standard dose of a known virus (usually 100 tissue culture doses) is mixed with an equal volume of varying dilutions of the serum to be tested, and after a period of incubation, the serum-virus mixture is inoculated into tissue culture tubes. An inhibition of cytopathogenic changes indicates that a specific antibody is present in the test serum, and the antibody titer is the highest serum dilution effecting neutralization. To be of diagnostic significance, at least a fourfold or greater increase in antibody titers must be demonstrated between the acute and the convalescent sera.

Simplified tests utilizing pH difference as the indicator have been developed for neutralizing antibody assay. The test system employs dispersed cells in suspension, with phenol red added as an indicator. If the test serum contains antibody, the cytopathic action of the virus is prevented, and thus the culture medium becomes yellow due to the acids produced by normal cellular metabolism. If the serum contains no antibody, cellular metabolism is interrupted by the virus action. Hence, the culture medium remains red.

Complement fixing antibody is determined by standard technics, except that infected tissue culture fluids are used as antigens.

POLIOMYELITIS

Poliomyelitis has been recognized as a distinct clinical entity for more than 100 years. The virus etiology of this disease, however, was not demonstrated until 1909.[2] At present, three distinct immunological types of poliovirus have been identified ,and they are designated as types 1, 2 and 3.

Prior to 1949, when Enders *et al.*[3] demonstrated the propagation of poliovirus in various human tissues *in vitro*, monkeys were the only animals available for isolation of virus from clinical material. Use of monkeys is not only cumbersome and expensive, but the results obtained are variable because different strains of poliovirus vary considerably in virulence according to route of inoculation, and some of them are relatively nonpathogenic. Thus, until recently, poliomyelitis investigation was carried on only on a limited scale and was pursued in relatively few research institutions. Following the advent of refinement in tissue-culture methods, the study of this disease has been completely revolutionized, and laboratory diagnosis has approached practicality. Diagnostic service for poliomyelitis is now available in many health departments and universities, as well as in some of the larger hospitals.

Many mammalian tissues may be used for the cultivation of polioviruses. Types of tissue culture most commonly employed for diagnostic work are monkey kidney epithelial cells and HeLa cells. These cells are highly susceptible to poliovirus, and cytopathogenic changes can usually be recognized within two or three days following inoculation. Under ordinary circumstances, poliovirus can be isolated and specifically identified within from seven to 14 days.

About 80 to 90 per cent of patients with paralytic poliomyelitis will yield poliovirus in their stools.[4,5] The frequency of isolation from patients with a clinical diagnosis of nonparalytic poliomyelitis is lower—usually about 40 or 50 per cent. The reason for this difference is that many of the cases diagnosed as nonparalytic poliomyelitis are caused by agents other than the poliovirus. Patients with poliomyelitis will excrete the virus in the feces for a number of weeks. During the first two or three weeks of illness, the virus may be recovered from the feces of about 60 or 70 per cent of the patients. After the third week, the percentage of isolation drops to around 25 per cent.[4]

Poliovirus may also be recovered from the oropharynx. Specimens, usually in the form of throat washings or throat swabs, must be collected early during the illness, for the virus seldom persists in this site more than 10 days after the onset of symptoms.

Isolation of poliovirus from the feces or from the oropharyngeal secretions of a patient with a clinical picture consistent with poliomyelitis constitutes reasonable evidence that the infection has been caused by poliovirus. When the diagnosis is in doubt, or in the absence of positive virus isolation, further evidence may be derived from serologic tests on acute- and convalescent-phase sera. Either the neutralization or the complement fixation test may be used. The former test, with the pH color technic,[6] has been most widely employed. A significant increase (fourfold or greater) in the neutralizing antibody titer may be detected in about 50 per cent of the patients when acute-phase serum has been obtained early and the convalescent serum obtained about three or four weeks following onset.

COXSACKIE VIRUS INFECTIONS

Coxsackie viruses were first isolated by Dalldorf and Sickles[7] in 1947 from patients thought to have poliomyelitis. The term *Coxsackie* derives from the name of a town in New York where these viruses were originally found. These agents as a group induce fatal disease with paralysis in suckling mice, but not in adult mice or monkeys. On the basis of the type of paralysis and histopathologic lesions observed in suckling mice, the Coxsackie viruses have been divided into two groups, designated as A and B. The Group A strains, when inoculated into suckling mice, induce flaccid paralysis and cause widespread degeneration of striated muscles, though there are no pathologic changes to be observed in other organs. The Group B strains, on the other hand, cause spastic paralysis, and histologically the lesions are present in other organs, principally the brain and fat pads, as well as striated muscles. The muscle degenerations, however, are focal rather than generalized as in Group A infections.

The present classification lists 24 antigenic types of Coxsackie viruses, 19 of which belong to Group A, and five to Group B. Most of the Coxsackie viruses cannot be propagated in tissue cultures, and strains of only six types—namely A9 and all five types of Group B—regularly induce cytopathogenic changes in monkey kidney tissue cultures. Hence, in the diagnosis of Group B infections, either monkey kidney cells or suckling mice may be used, whereas in Group A infections, inoculation of suckling mice is the method of choice.

The etiologic relation of Coxsackie viruses to human disease is summarized in Table 1. It is now well established that herpangina, a type of ulcerative pharyngitis first described by Zahorsky, is caused by Coxsackie viruses of Group A. This disease usually occurs during the summer months, affecting primarily young children. The disease begins abruptly as an acute febrile illness, accompanied by headache, sore throat, nausea and vomiting. The characteristic lesions are the minute vesicles and ulcerations which appear on the soft palate and posterior pharyngeal wall. The Group A strains most commonly found in association with this illness belong to types 2, 4, 5, 6, 8 and 10.[8] Laboratory diagnosis is made by inoculating suckling mice with feces or oropharyngeal secretions.

TABLE 1

ASSOCIATION OF COXSACKIE VIRUSES WITH HUMAN DISEASE

Group A Strains
1. Herpangina
2. Minor febrile illness
3. Aseptic meningitis
Group B Strains
1. Aseptic meningitis
2. Pleurodynia
3. Minor febrile illness
4. Myocarditis or encephalomyocarditis
5. Pericarditis (?)
6. Mild paralysis (?)

Group A strains have also been found in patients with summer febrile illnesses and in patients with aseptic meningitis. Recently, isolations of Coxsackie viruses from spinal fluids of patients with meningoencephalitis have been reported by Gear *et al.*[9] in South Africa.

Group B Coxsackie viruses are most commonly found in patients with pleurodynia, aseptic meningitis and minor febrile illnesses. Infections caused by these agents frequently occur in epidemic proportions during the summer and fall months, and outbreaks caused by strains of all five types have been reported.

Coxsackie viruses can be readily recovered from feces, oropharyngeal secretions and cerebrospinal fluid, through the use of monkey kidney tissue cultures. In the aseptic meningitis outbreak that occurred in Mason City, Iowa,[10] during the summer of 1956, Coxsackie virus Group B type 5 was isolated from the stools of 75 per cent of the patients with aseptic meningitis. About 20 per cent of the patients were found to have this virus in the oropharyngeal secretions, and two of 16 patients examined had the B5 virus in their spinal fluids. As in poliomyelitis, the virus persists in the feces for several weeks. About 80 per cent of the patients were found to excrete the virus during the first and second week of illness, and 45 per cent were excreting it for more than two weeks.

Coxsackie B viruses have also been recovered from patients with myocarditis and encephalomyocarditis during infancy.[11, 12] Whether these viruses can cause pericarditis or induce illness with mild paralysis is yet to be determined.

Coxsackie virus infections may also be confirmed by serologic studies. Practical methods, however, have not yet been developed because satisfactory complement-fixing antigens are not available, and neutralizing antibody assays are extremely laborious and time-consuming, for large numbers of antigens must be employed in the tests.

ECHO GROUP OF VIRUSES

The widespread application of tissue culture for investigation of poliomyelitis in the last several years has resulted in the isolation from the gastrointestinal tract of a large number of viruses that are not identifiable as polioviruses, Coxsackies or other previously known microorganisms. Because there was no obvious etiologic relationship of these agents to human disease, they were collectively referred to as "orphan viruses"—viruses in search of disease. In 1955, following the study and recommendations of a committee,[13] the term *enteric cytopathogenic human orphan* (ECHO) was proposed as a group designation for these viruses. The committee also defined certain common properties that may be useful as a guide for in-

cluding a virus in the ECHO group: (1) They are cytopathogenic for monkey and human cells in culture. (2) They are not neutralized by pools of the three types of poliomyelitis antiserum. (3) They are not neutralized by antiserums for Coxsackie viruses that are known to be cytopathogenic in tissue culture, and they fail to induce disease in infant mice. (4) They are not related to other groups of viruses recoverable from the alimentary tract (throat or intestine) by inoculation of primate tissue culture. (5) They are neutralized by human gamma globulin and by individual human serums. In the committee's first report, 13 antigenically distinct types of viruses were assigned numerically to this group. Recently, six additional types have been added to the list. Of the 19 prototype strains, eight were isolated from patients with aseptic meningitis, nine from healthy persons, and two from patients with diarrhea. There is little doubt that additional prototypes will be added to the ECHO group.

Although the knowledge about ECHO viruses is increasing rapidly, their etiologic role in human disease (Table 2) is still largely undefined. It is reasonably certain that some of the ECHO viruses can cause aseptic meningitis and minor febrile illnesses. Whether they are capable of inducing permanent muscle weakness, as does poliovirus, however, remains to be shown.

TABLE 2
ASSOCIATION OF ECHO VIRUSES WITH HUMAN DISEASE

1. Aseptic meningitis
2. Minor febrile illness
3. Summer rash
4. Diarrhea
5. Acute respiratory illness
6. Mild paralysis (?)

It is quite clear that types 4, 6 and 9 are important etiologic agents of the aseptic meningitis syndrome. The evidence linking these viruses to aseptic meningitis have been provided principally from studying localized outbreaks. The pathogenic capacity of ECHO virus type 4 was first recognized in the outbreak that occurred in Marshalltown, Iowa,[14] in 1955. Later, a similar but smaller outbreak was reported from South Africa.[15] The evidence with regard to the pathogenicity of ECHO virus type 6 was provided by the data obtained from studying aseptic meningitis that occurred in Massachusetts in 1954[16] and in New York[17] and Connecticut[18] in 1955. The etiologic role of ECHO virus type 9 was delineated by observations made on the outbreaks of aseptic meningitis that occurred in several countries in Europe during 1955 and 1956,[19, 20, 21] and in this country during the summer of 1957.[22]

It is of interest that the infection caused by ECHO virus type 9 is frequently accompanied by a rash as a part of the symptom complex. The rash generally resembles the exanthem of rubella and is distributed on the face, chest, abdomen and to a certain extent the extremities. The presence of rash was most often observed among young children.

The exanthematous disease described by Neva *et al.*[23] and referred to as "Boston exanthem" has now been classified in the ECHO group. The agents recovered from patients with this illness have been found to be antigenically related to ECHO virus type 16.

The evidence relating ECHO virus to diarrhea has recently been reported by Eichenwald and his associates[24] in their study of a hospital outbreak of mild diarrhea involving infants. The viruses isolated have been identified as a type antigenically related to ECHO virus type 18. Isolation of agents which fulfill the criteria of an ECHO virus has also been made from children with acute respiratory disease.[25] These agents,* however, are not antigenically related to any of the 19 types classified in the ECHO group.

ECHO viruses grow best in monkey kidney tissue cultures. As in Coxsackie viruses, these agents may be readily recovered from feces, oropharyngeal secretions and cerebrospinal fluid. In the Marshalltown outbreak, ECHO virus type 4 was recovered from the feces of 52 per cent of the patients with aseptic meningitis.[14] In the outbreak of ECHO virus type 6 reported by Winkelstein *et al.* in New York,[17] the frequency of virus recovery was about 68 per cent. In the ECHO 9 outbreak that occurred in Belgium,[20] the virus was detected in the feces of 54 per cent of the patients. In general, the frequency of virus recovery from oropharyngeal secretions and from spinal fluid is lower than that which can be obtained from feces.

ECHO viruses, not unlike other enteroviruses, may persist in the feces for several weeks following the onset of symptoms. These agents generally are not detected in the oropharynx or cerebrospinal fluid after the first seven or 10 days of illness.

Although confirmation of ECHO virus infection may be accomplished by neutralizing antibody assay on acute and convalescent sera, the tests now employed are entirely too complicated and laborious to be of practical value in routine diagnosis. The complement fixation test presents similar difficulties because complement fixing antigens do not possess components common to the ECHO group. Hence, large numbers of antigens must be used in the tests.

SUMMARY

During the last several years, tremendous progress has been made in the study of virus diseases. This remarkable advance has been due principally to the development of the newer technics of tis-

* One of the agents, designated as JV-1 virus, is now classified as the prototype strain of ECHO virus type 20.

sue culture. The use of these methods has been found particularly applicable for the diagnosis of poliomyelitis, Group B Coxsackie infections and diseases due to certain ones of the ECHO viruses. Isolation of such a virus from a patient with a consistent clinical picture provides the practicing physician with a fairly good presumptive etiologic diagnosis. Under certain situations, serologic studies on acute and convalescent sera may be of value to lend further support in defining the etiology.

REFERENCES

1. Committee on Enteroviruses: Enteroviruses. Am. J. Pub. Health, **47**:1556-1566, (Dec.) 1957.
2. Landsteiner, K., and Popper, E.: Uebertragung der Poliomyelitis acuta auf Affen. Ztschr. f. Immunitätsforsch. u. exper. Therap., **2**:377-390, I Teil, 1909.
3. Enders, J. F., Weller, T. H., and Robbins, F. C.: Cultivation of Lansing strain of poliomyelitis virus in cultures of various human embryonic tissues. Science, **109**:85-87, (Jan.) 1949.
4. Miller, C. A., and Kamitsuka, P.: Recovery of poliomyelitis viruses from fecal samples of poliomyelitis patients and household contacts. Am. J. Med. Sci., **231**:607-615, (June) 1956.
5. Godenne, M. O., and Riordan, J. T.: Tissue culture diagnosis of poliomyelitis and aseptic meningitis. J.A.M.A., **158**:707-712, (July 2) 1955.
6. Salk, J. E., Youngner, J. S., and Ward, E. N.: Use of color change of phenol red as indicator in titrating poliomyelitis virus or its antibody in tissue-culture system. Am. J. Hyg., **60**:214-230, (Sept.) 1954.
7. Dalldorf, G., and Sickles, G. M.: Unidentified, filtrable agent isolated from feces of children with paralysis. Science, **108**:61-62, (July 16) 1948.
8. Parrott, R. H.: Clinical importance of group A Coxsackie viruses. In: Viruses in search of disease. Ann. N. Y. Acad. Sci., **67**:230-240, (Apr.) 1957.
9. Gear, J., Measroch, V., and Prinsloo, F. R.: Medical and public health importance of Coxsackie viruses. S. Afr. M. J., **30**:806-810, (Aug. 26) 1956.
10. Chin, T. D. Y., Lehan, P. H., Rubin, H., and Wenner, H. A.: Epidemic infection with Coxsackie virus, Group B, Type 5: 2. Virus excretion and neutralizing antibody response. Am. J. Hyg., **67**:321-330, (May) 1958.
11. Montgomery, J., Gear, J., Prinsloo, F. R., Kahn, M., and Kirsch, Z. G.: Myocarditis of newborn; outbreak in maternity home in Southern Rhodesia associated with Coxsackie Group B virus infection. S. Afr. M. J., **29**:608-612, (Nov. 8) 1956.
12. Kibrick, S., and Benirschke, K.: Acute aseptic myocarditis and meningoencephalitis in newborn child infected with Coxsackie virus Group B, Type 3. New England J. Med., **255**:883-889, (Nov. 8) 1956.
13. Committee on the ECHO Viruses: Enteric cytopathogenic human orphan (ECHO) viruses. Science, **122**:1187-1188, (Dec. 16) 1955.
14. Chin, T. D. Y., Beran, G. W., and Wenner, H. A.: Epidemic illness associated with recently recognized enteric virus (ECHO virus Type 4): II. Recognition and identification of etiologic agent. Am. J. Hyg., **66**:76-84, (July) 1957.
15. Malherbe, H., Harwin, R., and Smith, A. H.: Outbreak of aseptic meningitis associated with ECHO virus Type 4. S. Afr. M. J., **31**:1261-1264, (Dec. 14) 1957.
16. Kibrick, S., Melendez, L., and Enders, J. F.: Clinical associations of enteric viruses with particular reference to agents exhibiting properties of ECHO group. In: Viruses in search of disease. Ann. N. Y. Acad. Sci., **67**:311-325, (Apr.) 1957.
17. Winkelstein, W., Jr., Karzon, D. T., Barron, A. L., and Hayner, N. S.: Epidemiologic observations on outbreak of aspetic meningitis due to ECHO virus Type 6. Am. J. Pub. Health, **47**:741-749, (June) 1957.
18. Davis, D. C., and Melnick, J. L.: Association of ECHO virus Type 6 with aseptic meningitis. Proc. Soc. Exper. Biol. & Med., **92**:839-843, (Aug.-Sept.) 1956.
19. Archetti, I., Felici, A., Russi, F., and Fua, C.: Researches on etiologic agent of marche meningoneuraxitis during epidemic outbreak of summer and autumn of 1955. Scientia Medica Italica, **5**:321-354, 1956.
20. Nihoul, E., Quersin-Thiry, L., and Weynants, A.: ECHO virus Type 9 as agent responsible for important outbreak and aseptic meningitis in Belgium. Am. J. Hyg., **66**:102-118, (July) 1957.
21. Galpine, J. F., Clayton, T. M., Ardley, J., and Baster, N.: Outbreak of aseptic meningitis with exanthem. British M. J., **1**:319-321, (Feb. 8) 1958.
22. Kleinman, H., Rogers, D., Ellwood, P. M., Jr., Bruhl, H., Schuman, L. M., and Bauer, H.: Epidemic of ECHO 9 aseptic meningitis in Minnesota, 1957. Univ. Minn. Med. Bull., **29**:306-328, 1958.
23. Neva, F. A., Feemster, R. F., and Gorbach, I. J.: Clinical and epidemiological features of unusual epidemic exanthem. J.A.M.A., **155**:544-548, (June 5) 1954.
24. Eichenwald, H. F., Ababio, A., Arky, A. M., and Hartman, A. P.: Epidemic diarrhea in premature and older infants caused by ECHO virus Type 18. J.A.M.A., **166**:1563-1566, (Mar. 29) 1958.
25. Cramblett, H. G., Rosen, L., Parrott, R. H., Bell, J. A., Huebner, R. J., and McCullough, N. B.: Respiratory illness in six infants infected with newly recognized ECHO virus. Pediatrics, **21**:168-177, (Feb.) 1958.

Most People Want to Choose Their Doctor

More than three-fourths of the population of the United States want to choose their own doctor. In addition, they want to assume all or part of the responsibility for paying their doctor bills. These were among the findings in a survey conducted among a sampling of the adult general population by Opinion Research Corporation, of Princeton, New Jersey, for the American Medical Association.

The study also showed that 88 per cent of the American people believe the right to see the same doctor regularly is of vital importance. Eighty-nine per cent believe that medical care in this country has improved over the past 20 years. Half of that number ascribed the improvement to more and better research and to advances in medical science.

Seventy-six per cent of the people said they wanted to choose their own physicians, but 13 per cent saw no difference in whether they or someone else chose their physician, eight per cent preferred to have someone else choose him, and three per cent expressed no opinion.

In answer to further questioning, 93 per cent of those surveyed felt that free choice would give them more confidence in the doctor; 84 per cent thought that doctors so chosen would take a more personal interest in them; and 79 per cent believed that with free choice they would have less trouble in getting the doctor to make a home call.

Concerning the payment of medical bills, a total of 79 per cent wanted to assume all or part of the responsibility for paying their doctor bills either by direct payment or by paying part of insurance premiums. The 79 per cent was made up of the following: 16 per cent who wished to pay all doctor bills directly; 16 per cent who wanted to pay all costs of insurance plans; and 47 per cent who favored paying part of the cost of an insurance plan. The remaining 21 per cent wanted someone else to pay their doctor bills.

The Treatment of Coronary Atherosclerosis

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IT IS THE purpose of this discussion to present a brief review of the therapy for *chronic* coronary heart disease. The measures used in managing the acute phases will not be touched upon.

A rational approach to therapy or prevention of any disease necessitates a knowledge of the underlying cause, and unhappily we don't have that knowledge about atherosclerosis. The complexity of the problem can easily be illustrated by brief references to the course of the disease in just five of our patients.

A 68-year-old minister had had a proved posterior myocardial infarction 26 years before we saw him. Thereafter, he had had attacks of angina pectoris almost daily, without subsequent myocardial infarction, or serious interference with his professional or personal life. A 42-year-old university professor, on the other hand, developed mild anterior-chest discomfort one hour after lunch, and vomited a few minutes later. He promptly walked to his physician's office in an adjoining building, and while being examined, he unexpectedly died from coronary thrombosis. Another man was seen periodically for 13 years, during which time he had frequent attacks of angina pectoris without any other difficulty. At age 79, while addressing his Sunday school class, he unexpectedly fell dead upon the floor. Next, a 33-year-old truck driver began to have angina pectoris in May, 1949, and a month later had an anteroseptal myocardial infarction. He returned to his same occupation later that year, and when he was last seen three years afterward, his electrocardiogram was normal and he was working full time at strenuous labor without any cardiac symptoms whatsoever. Finally, a 46-year-old machinist was admitted to the hospital in February, 1954, in status anginosus with as many as 25 attacks of pain each day. It seemed almost inevitable that myocardial infarction would follow, but such was not his fate. He is well today and at work at his same job, with so few attacks of mild angina pectoris that he forgets to carry nitroglycerin. None of these men was obese, hypertensive or diabetic. All were seen before the present emphasis on diet began, and none was treated with long-term anticoagulant therapy. By no means do they portray the complete spectrum of coronary heart disease, but they do serve as a reminder of the variable course and the difficulty —even the hazard—of hasty evaluation of any form of therapy.

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The unpleasant truth is that the newer therapy for atherosclerosis today is wholly in the experimental stage, and we do not pretend that we can clarify it. Nor is it our purpose here to discuss the conflicting theories of etiology. We can but touch on the therapeutic implications of the attempts that are being made at lowering the levels of serum lipids, lipoproteins and cholesterol, and at controlling emotional stress.

Coronary artery disease comprises two pathological processes. The primary event is the growth of the lipid-containing intimal plaque. During its genesis it may cause little difficulty, unless the secondary factor, thrombosis, occurs at the site of a lesion. Here it can be said that present-day evidence suggests that the prolonged use of any reliable anticoagulant preparation on an ambulatory basis often prevents the thrombotic complications in the coronary and cerebral arterial beds. Such therapy implies that the chosen drug will be given in the proper dose, under strict laboratory control, that it will depress the prothrombin time and maintain it in the effective range, and that both the physician and the patient are prepared to walk the fine line between bleeding, on the one hand, and the escape from the effect of the drugs, on the other. Overdosage and poor laboratory control can result only in alarming or fatal hemorrhage, and underdosage and poor laboratory control are worse than useless, for they give a false sense of security to the patient and the physician alike. Prolonged anticoagulant therapy is neither simple nor cheap, but properly used it is a rational approach.

CONTROL OF SERUM LIPIDS AND CHOLESTEROL

Therapy directed at inhibition of the development of the intimal atheromatous lesions assumes that it is beneficial to control the levels of serum lipids and cholesterol. At least five approaches for achieving this goal are currently under investigation.

Diet. Three types of dietary regimen have their advocates today. The first of these emphasizes a substantial reduction in the ingestion of cholesterol. Such a diet, of necessity, also limits the intake of animal fats. The second regimen aims at reducing dietary fat from the usual American standard of 40 per cent of total calories to 20 per cent. The third plan supplements the low-fat diet with one of the liquid vegetable oils rich in the unsaturated and essential fatty acids in a dose of 1½ to 3 ounces daily. Unsaturated vegetable oils from corn and cotton seed are available in

grocery stores, and there are several pharmaceutically prepared products on the market, as well. Menus of the low-fat type are practical to prepare,[1] reasonably palatable and apparently nutritionally adequate, but their use requires a self-disciplined patient, and a cook who is not too rigid to change her accustomed food-preparation habits and who can resist the temptations offered by the food pages of modern magazines.

Inhibition of cholesterol absorption. Sitosterol, a sterol of vegetable origin, is essentially unabsorbed from the gastrointestinal tract, and when administered with a meal containing cholesterol, inhibits its absorption. Its use may cause a lowering of the serum cholesterol.[2] A commercial preparation of sitosterol is available, and it has a place in this form of therapy, in combination with the dietary regimens outlined above, when the latter alone are insufficient.

Vitamins. Nicotinic acid in a dose of 3.0 Gm./-day—200 times the daily nutritional requirement —will lower serum cholesterol without dietary changes.[3] However, patient acceptance may be poor because of the resultant flushing from the large dose. The potential toxicity of this dosage over a long period of time is unsettled. Pyridoxine deficiency in monkeys produces a type of arteriosclerosis completely different from atherosclerosis in man,[4] and deficiency of this vitamin in human beings with atherosclerosis has not been demonstrated. Yet, pyridoxine is now being added to some of the pharmaceutical preparations of unsaturated vegetable oils. Choline and methionine as preventive agents have gone out of fashion, but not before large amounts were sold. Interestingly, a high choline diet has *promoted* atherosclerosis in the rat.[5]

Hormones. The striking disproportion of coronary heart disease between men and premenopausal women led naturally to the speculation that the female sex hormones are anti-atherogenic, and there is experimental evidence supporting such a hypothesis. However, the presumably effective dose of estrogenic hormones causes feminization in men, and most men prefer to retain their virility despite the possibility of living more safely as castrates. The effects so detrimental in men do not prevail in post-menopausal women with coronary heart disease, and here it is feasible to use such therapy. Even so, long-term observations are required to confirm the proposed benefits.

Antilipemic Agents. Heparin has both anticoagulant and antilipemic effects. Its injection after a fat-rich meal invariably accelerates the removal of fats from the blood. This effect is defined as the clearing-factor activity, and it is a current hypothesis that this action may be beneficial in the treatment of atherosclerosis. This form of therapy also is experimental, but it is being practiced too —often ineffectively, we fear. Probably anything less than the daily subcutaneous injection of 50-100 mg. of aqueous heparin provides less than optimal clearing-factor activity. Incidentally, this dosage has no significant anticoagulant effects.[6]

Thus, in complete candor we can say in summary of the newer approaches to the treatment of atherosclerosis, only that all people—sick or well—should maintain a normal weight, and this alone usually necessitates some caloric restriction of fat. Furthermore, for patients who have clinically recognizable atherosclerotic syndromes and significantly elevated serum levels of cholesterol, dietary regimens, with or without supplemental unsaturated oils or sitosterol, are feasible. There is reasonable assurance that these measures will lower the serum cholesterol in the majority of patients, but it is presently unsettled whether this is specifically valuable.

We wish to emphasize that adoption of these measures requires that the patient assume responsibility for his illness, and that the physician keep a close check on the level of the serum cholesterol. Anything less is mere lip service to this form of therapy, is unlikely to benefit the patient and adds nothing to the scientific advancement of our knowledge in this perplexing field.

Associated diseases known to increase the serum cholesterol or to increase the work of the heart should be controlled when possible, and efforts should be made judiciously to reduce the blood pressure in patients who have significant essential hypertension.

Our remarks concerning anticoagulants, vitamins, hormones and antilipemic agents need no summarization.

REDUCTION OF STRESS

Emotional and physical stress have long been associated with coronary disease on clinical grounds, and the prescription of sedatives and rest for such patients is standard practice. Recently, some objective support for this view was reported from a group of patients on a constant diet. The findings suggested that significant rises in the serum cholesterol were related to stressful emotional and fatiguing situations.[7] Even so, this does not sanction the over-use of sedatives or tranquilizing drugs in coronary patients. Ideally, here as in any other chronic disease, patients must learn a way of life that includes acceptance of their limitations, if there be any. Gloomy as the general outlook is for such patients, we must continually remind ourselves that probably no more than 10 per cent of them die from their first myocardial infarction, and that recovered patients in large numbers are able to live useful, happy lives for years afterward. Knowing this, we must plant ideas of rehabilitation in the mind of the patient almost as soon as it is obvious that he will survive his myocardial infarction. It is virtually impossible to predict the future course of the individual patient, but if the medical facts justify it, we must assume the risk of a good prognosis. To

do otherwise is to encourage needless fear and anxiety and to abet an overrestriction of activity.

Evidence today supports the hypothesis that exercise and work within the tolerance of the recovered patient is beneficial to his heart and to his emotional state, and is likely to aid even in the lowering of his serum cholesterol.[8] There never was any rationale in restricting the activity of the patient with *chronic* heart disease much below the level of controlling symptoms. Today, the emphasis should be on what the patient *can* do, not on magnifying his limitations. Most of us do not wish to become specialists in ergometry, and this discussion will only touch upon cardiac rehabilitation. However, it is of interest to know that washing, shaving, dressing and walking around the block require an energy expenditure of 6.6 calories per minute.[9] Few physicians forbid such activity for Class I and II, or even Class III cardiac patients, yet the energy expenditure equals or exceeds the energy requirements for many industrial and "white collar" jobs. Most agricultural jobs require greater energy expenditures, but even in such an occupation, work that is compatible with tolerance frequently is possible without fear of overtaxing the heart.[10] A work prescription in the old terms of "take it easy" does not accomplish much. More specific advice is needed, and the information to make such decisions is becoming available. Advice against exercise after meals and in the cold, and warnings about anginal precipitating factors are as germane now as in the past.

VASODILATING DRUGS

Claims and counterclaims abound regarding a wide range of drugs that are said to be useful in this field. The chief goal is to relieve or diminish the frequency of attacks of angina pectoris. The wide use of these drugs in the acute phase of myocardial infarction has been largely replaced by anticoagulant therapy, and there never was any real conviction that they aided greatly in promoting a collateral coronary circulation when used later on. Only nitroglycerin or amyl nitrate have specificity for the relief of angina pectoris. Nitroglycerin is the preferred drug, and nothing to date has dimmed its usefulness. Beyond this, efforts have been directed, for the most part, toward the designing of nitrate or xanthine drug preparations with sustained actions, and toward combining them with other drugs. The latest addition is a linguet of erythrol tetranitrate, and it deserves a trial.[11] Probably pentaerythritol tetranitrate (Peritrate) and aminophylline have had the widest usage. We have reported some success from the use of Rauwolfia serpentina in normotensive patients.[12] There are optimstic reports on every preparation on the market, but they do not constitute proof of effectiveness. The variable course of angina pectoris makes an evaluation of drug therapy very difficult. We use vasodilating drugs, but advise that each patient serve as his own control. One may as well stop using any of them unless there is unequivocal reason to believe that the frequency of attacks in a particular patient is being diminished or that exercise tolerance is being extended. Seldon do they completely eliminate the need for nitroglycerin.

ANTITHYROID DRUGS AND SURGERY

In conclusion, a brief reference to antithyroid drugs and surgical measures is in order, based only on observations that have been made at University Hospitals. We have had a few impressive results from radioactive iodine induced hypothyroidism in patients with severe, progressive, uncontrollable angina pectoris, but the technic has not been consistently effective. In fact, it is seldom easy to produce hypothyroidism in the euthyroid patient. Certainly the ultimate goal in coronary heart disease must be something other than the adding of another disease that has serious implications of its own.

We have not detected any general enthusiasm for the Beck I type of procedure for improving myocardial blood supply, and our limited experience has been disappointing. Surely, ligation of the internal mammary arteries will suffer the ignominious fate that it seems so richly to deserve. For various reasons, experience with upper thoracic sympathectomy has not been strikingly helpful for the relief of angina pectoris, but it seems that the radical procedure advocated and performed by Palumbo[13] deserves a wider trial.

REFERENCES

1. Dobbin, E. Virginia, and others: The Low Fat, Low Cholesterol Diet: What to Eat and How to Prepare It. Garden City, New York, Doubleday & Company, Inc., 1951.
2. Best, M. M., and Duncan, C. H.: Modification of abnormal serum lipid patterns in atherosclerosis by administration of sitosterol. Ann. Int. Med., **45**:614-622, (Oct.) 1956.
3. Parson, W. B., Achor, R. W. P., Berge, K. G., McKenzie, B. F., and Barker, N. W.: Changes in concentration of blood lipids following prolonged administration of large doses of nicotinic acid to persons with hypercholesterolemia: preliminary observations. Proc. Staff Meet. Mayo Clin., **31**:377-390, (June 27) 1956.
4. Rinehart, J. F., and Greenberg, L. D.: Vitamin B_6 deficiency in Rhesus monkey, with particular reference to occurrence of atherosclerosis, dental caries and hepatic cirrhosis. Am. J. Clin. Nut., **4**:318-328, (July-Aug.) 1956.
5. Wissler, R. W., Eilert, M. L., Schroeder, M. A., and Cohen, L.: Production of lipomatous and atheromatous arterial lesions in albino rat. Arch. Path., **57**:333-351, (Apr.) 1954.
6. Connor, W. E., and Armstrong, M.: Unpublished observations.
7. Frideman, M., Rosenman, R. H., and Carroll, V.: Changes in serum cholesterol and blood clotting time in men subjected to cyclic variation of occupational stress. Circulation, **17**:852-861, (May) 1958.
8. Mann, G. V., and others: Exercise in disposition of dietary calories; regulation of serum lipoprotein and cholesterol levels in human subjects. New England J. Med., **253**:349-355, (Sept. 1) 1955.
9. Hellerstein, H. K., and Ford, S. B.: Rehabilitation of cardiac patient. J.A.M.A., **164**:225-231, (May 18) 1957.
10. January, L. E., Stoikovic, J. P., Robb, T. A., and Van Eschen, W. L.: Cardiac-in-Agriculture Demonstration. Des Moines, Iowa Heart Assn., 1958.
11. Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and other nitrates in treatment of angina pectoris: comparison of six preparations and four routes of administration. Circulation, **17**:22-39, (Jan.) 1958.
12. Lewis, B. I., Lubin, R. I., January, L. E., and Wild, J. B.: Rauwolfia serpentina in treatment of angina pectoris. Circulation, **14**:227-232, (Aug.) 1956.
13. Palumbo, L. T.: New approach to relief of angina pectoris. J. Iowa M. Soc., **46**:343-349, (July) 1956.

Preanesthetic Evaluation and Preparation

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THE BASIC SAFEGUARD in the practice of anesthesia is the presence of a physician anesthesiologist. His role is that of a consultant to the surgeon in respect to problems of pharmacology and physiology. He is, in fact, the medical internist in the operating room, advising the surgeon about the patient's physiologic dysfunction and pharmacologic needs, and about the treatment of medical complications that arise in the patient during the course of anesthesia and surgery.

The anesthesiologist's province and sphere is thus clearly defined. He devotes his attention to the physiologic changes in the patient, thus permitting the surgeon to concentrate upon the repair or correction of anatomical abnormalities. In brief, the surgeon looks after the anatomy and leaves the anesthesiologist to watch the physiology.

PREANESTHETIC VISIT

The anesthesiologist must visit every surgical patient on the day before the operation. At that time, he should make a complete assessment of the patient with three distinct objectives in mind: (1) determination of the patient's physical condition; (2) choice of anesthetic agent and technic; and (3) estimation of the operative risk.

In determining the patient's physical status, he must place great reliance upon the examinations and reports that have been made by the internist. The anesthesiologist not only should note the patient's past and present diseases and disabilities, but also he should learn whether or not the internist believes that any derangements can be converted and whether or not functional preparation is optimal. If no further improvement can reasonably be expected, one should consider the patient prepared medically.

Specific points which the anesthesiologist should next determine for himself, and which have a bearing on the conduct of safe anesthesia, include the following:

1. *Physical habitus and weight of the patient.* In checking these aspects of the patient's condition, he will find Kretschmer's classification useful. Four physical types are recognized: (a) the anthenic, (b) the pynic, (c) the athletic and (d) the dysplastic. Other qualifying adjectives such as *obese, barrel-chested* and *bull-necked* may be included.

2. *Dental condition.* The hygiene of the teeth is evaluated, and the presence of dentures is noted.

3. *Habits.* The anesthesiologist will want to know whether or to what extent the patient is in the habit of consuming alcohol, whether he is addicted to drugs or occasionally takes them, and whether or not he is a heavy smoker. There is a sevenfold greater incidence of postoperative pulmonary complications in excessive smokers.

4. *Allergies.* If the patient has experienced any drug reactions, the anesthesiologist will want to avoid using the offending agents.

5. *Previous operations and anesthetics.*

6. *Medications.* If the patient has been on cortisone therapy within the preceding six months, he must be placed on hydrocortisone preoperatively, and continued on it for eight hours postoperatively. The anesthesiologist must find out whether the patient has been given antihypertensive therapy, for many of the drugs that are used for that purpose potentiate anesthetics and lead to hypotension.

The anesthesiologist must also examine the patient during this preanesthetic visit. He should always take his blood pressure on the day before surgery, and he should assess the quality of the pulse. Posture and the mechanics of breathing should be checked, and the patency of the nasal passages is important.

BEDSIDE TESTS OF FUNCTION

Simple bedside tests of pulmonary and cardiac function are helpful to the anesthesiologist in estimating the patient's risk.

Sebarese's breath-holding test. This is a simple, though somewhat crude, means of discovering pulmano-cardiac cripples. After he has taken two or three deep breaths, the patient is asked to hold the next one as long as possible. A holding time of 30 seconds or more is normal. A subject unable to hold his breath longer than 20 seconds has a diminished reserve, and if the breath holding is less than 15 seconds, his function is severely compromised.

The Valsava test. The Valsava maneuver consists of taking a deep breath and then exerting a maximal expiratory or squeezing effort against a closed glottis. When this is done, the systemic systolic pressure rises 40 mm. Hg. or more for three seconds, and then the pressure tapers off gradually over the next several seconds. On resumption of normal respiration, there is a sudden fall to normal or slightly below, and then a rebound rise or "overshoot." These pressure changes can be divided into four phases, as represented in Figure 1.

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When one carries out this test, he should have certain simple items of equipment at hand: (1) an aneroid sphygmomanometer gauge with a short length of pressure tubing connected to a mouthpiece, (2) an ordinary blood pressure apparatus and (3) a stethoscope.

A resting blood pressure is first obtained while the patient is supine. Next, the mouthpiece is put into the patient's mouth, and the arm blood-pressure cuff is put in place and is inflated to 40 mm. Hg. above normal. The patient is then instructed to exhale vigorously, so as to raise the aneroid pointer to 40 mm. Hg. Meanwhile, the systemic pressure changes are followed for approximately 10 seconds.

An abnormal response is denoted by a sustained rise in pressure throughout the period of expiratory strain, in contrast to the transitory rise that occurs in the normal subject. In addition, no "overshoot" is seen in the abnormal individual at the conclusion of the test.

The Valsava maneuver has been found to provide reliable information as to the presence of varying degrees of pulmonary congestion due to cardiac dysfunction. It is also useful in demonstrating incipient cardiac failure. Such conditions as left ventricular failure, mitral stenosis, aortic stenosis, failure, constrictive pericarditis, etc. produce the abnormal response. If the test is negative in the presence of dyspnea, the dyspnea is due to pulmonary disease.

EVALUATION OF CARDIOVASCULAR FUNCTION

The electrocardiogram and the ballistocardiogram provide specific data for estimates of cardiovascular function. Abnormalities of findings thus secured have been shown to correlate closely with the development of complications.

The electrocardiogram serves as a screening test. It is not a measure of functional capacity, but in the older age group, it is a clue to many abnormalities such as diffuse myocardial disease, conduction defects, hyperirritability and myocardial infarction. It may indicate preventive measures, and at least it establishes a baseline against which one can measure subsequent complications. Increased morbidity and mortality are found among patients whose electrocardiograms have shown (1) healed myocardial infarction,[12] (2) auricular premature contractions,[11] (3) auricular fibrillation[13] and (4) bundle branch block. There is a considerable likelihood of postoperative complications in patients whose electrocardiograms show evidence of myocardial infarction and auricular premature contractions.

Ballistocardiograms are graded into classes 0, 1, 2, 3 and 4 (Brown) according to their degrees of deviation from the normal. Primarily, the ballistocardiogram is a measure of the strength of the heart beat, but in young subjects it correlates quantitatively with cardiac output. A close association between ballistographic abnormalities and

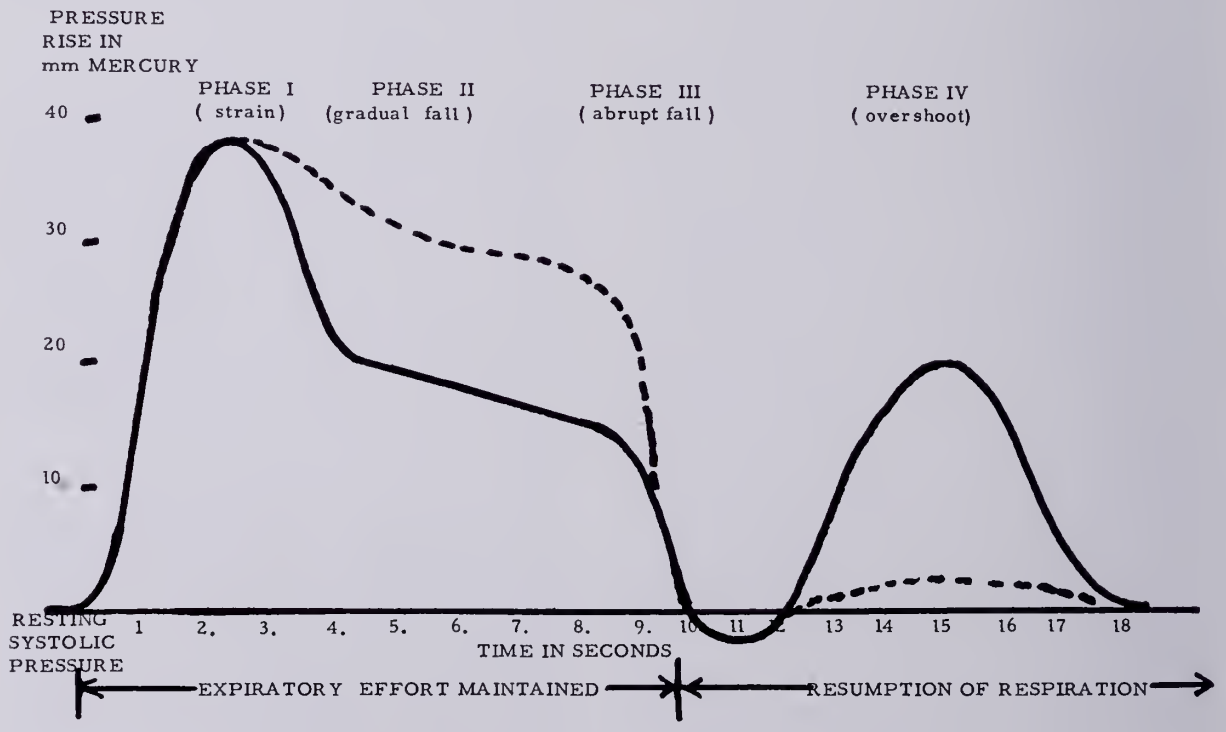


Figure 1. The Valsava maneuver, showing the effect on systolic blood pressure in normal subjects and in patients with pulmonary congestion (dotted line).

coronary heart disease is recognized,[15] and abnormal readings are also an indication of functional capacity in such conditions as angina pectoris, bundle branch block and tachycardia.

Abnormal ballistocardiograms of classes 3 and 4 foreshadow complications, and are associated with increased operative and postoperative morbidity and mortality. However, one shouldn't be content with just a resting record. Howland[11] states that a normal gram in an elderly patient justifies an optimistic outlook, but that a poor gram in a younger patient is a danger sign.

RESPIRATORY EVALUATION TESTS

It is desirable to perform two specific and easy tests of pulmonary function upon geriatric patients and upon younger individuals who are to undergo major surgery. These are a vital capacity measurement and a timed capacity test. From the results thus secured, patients can be classified either as normal or as having one of the following abnormal conditions: (1) a restrictive lesion (vital capacity below 80 per cent of the predicted, and timed vital capacity normal—i.e., above 60 per cent of the predicted); (2) an obstructive lesion (vital capacity normal—i.e., above 80 per cent of predicted—but timed vital capacity below 60 per cent of the predicted); or (3) a combined lesion.

These studies enable the operative team to determine the extent of risk, and they identify those patients who are in need of preoperative respiratory therapy. Thus, when an obstructive lesion is present, the following regimen can be instituted: expectorants, antibiotics, liquifying agents and postural drainage.

Howland has found that any type of ventilatory defect increases the incidence of postoperative complications. Patients with emphysema are particularly vulnerable. In the geriatric patient, the mortality increases from about two per cent in patients with normal pulmonary function to almost 10 per cent in patients with combined lesions.

CONSULTATION NOTE

Having inquired into these important details, the anesthesiologist should proceed to record his findings on the patient's hospital chart. Such notes afford a summary of significant facts that will influence the conduct of anesthesia, and will also provide some medicolegal protection. A suggested form for the anesthesiologist's notes is shown in Figure 2. Negative statements and positive findings have equal importance. The medication desired for the anesthetic technic and agent that have been selected must then be indicated on the proper order form.

SUGGESTED FORM FOR RECORDING DATA ON PATIENT'S CHART PERTINENT TO CONDUCT OF ANESTHESIA

DATE:
Weight: Habitus: Dentition:
Habits: Allergies:————or none.
Medications:
Respiratory System: Mechanics; Sinuses; Recent Colds:
Cardiovascular System: Pulse: B.P.: EKG
Symptoms:
Other Systems:
Significant Laboratory Data:
Anesthesia History:
CONCLUSIONS: I. Physical Status
2. Choice of Anesthesia
3. Operative Risk
Signed.....

Figure 2

PSYCHOLOGICAL CONSIDERATIONS

The mental attitude of the surgical patient has a profound influence on the outcome of his operation (Figure 3). During his preoperative visit, the anesthesiologist exerts his psychologic power, and

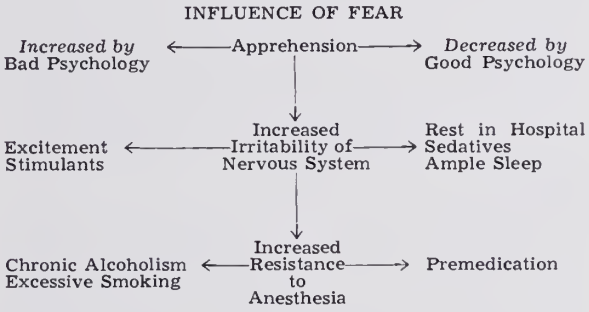


Figure 3

the extent of his influence will be reflected in the confidence the patient shows in his and the rapport that results. One must realize that the hospital environment and the forthcoming surgical experience are new for most patients, and that they want information and wish to understand.

Some suggestions for making a successful approach have been outlined by Buskirk[1]:

1. Treat all patients as human beings.
2. Be friendly; explain your visit and your plan.
3. Be attentive, sympathetic and understanding.
4. Exercise patience and humanity.
5. Work at winning the patient over.
6. Answer all questions in an understanding, warm manner. Allay the patient's fears.

In concluding a visit, reassure the patient, calm his anxieties and explain the procedures that are to be followed on the operation day. An informed patient is a tranquil patient.

OPERATIVE RISK

It is obvious that operative risk involves many variables that cannot be pinpointed. They fall into three categories: (1) those related to the patient; (2) those related to the surgery and the circumstances of the operation; and (3) anesthetic considerations.

First, as regards the patient and his physical state. It is the job of the internist-cardiologist to estimate the efficiency of the patient's various systems, and in particular the efficiency of his cardiac and pulmonary systems. It is his province to estimate the individual's total physical fitness and functional reserve. In the course of that evaluation, laboratory and other studies may be necessary. If there are any deficiencies that can be corrected, the internist should institute the necessary measures, so that he can deliver the patient to the anesthesiologist and surgeon in optimum physical condition, but he should then state that the patient is in the best possible state physically, and that certain specified functions can or cannot be further improved.

The surgical factors in the determination of operative risk include the magnitude of the procedure that is to be undertaken and, of course, the skill of the surgeon. The chances of survival and the morbidity associated with each of the various procedures are best known to the surgeon. He must acquaint his teammate the anesthesiologist with his plan of surgery. From this information, plus his knowledge of the patient's physical condition, the anesthesiologist will select the best anesthesia.

The factors in the third category are the anesthetic and the skill of the anesthesiologist. When either his skill or his experience is less than maximal, the hazards of surgery are of course proportionately increased. Similarly, an improper choice of either anesthetic technic or anesthetic agent enhances the total risk.

Part of the hazard involved in anesthesia may stem from deficiencies in the staff or equipment of the operating room. The expertness of the nurses, including the deftness of the scrub nurse and the capability of the circulating nurse are highly important. When they are attentive, and anticipate the doctors' needs, they contribute significantly to the patient's safety.

Thus, the anesthesiologist who is aware of all the factors that are involved can make an accurate estimate of the operative risk, but in arriving at his decision he obviously must consult with the surgeon and with the internist. The surgeon tells him the nature of the problem, outlines what he proposes to do and forecasts the amount of time he will need, together with other pertinent requirements. The internist furnishes information about the patient's cardiac work capacity and the stability of his vascular system, and evaluations of his nutritional state and cardiopulmonary reserve. Only then does the anesthesiologist make his choice of the anesthetic method and agent which, in his hands, will be safe and adequate.

PHYSICAL STATUS

Physical status must be differentiated from operative risk, for it is truly a different thing. Physical status consists of the patient's general fitness and the reserve of his system specifically to withstand stress. Its equivalent in the athletic world is the state usually referred to as "the pink of condition," the contestant's peak of preparedness for competition. Many patients similarly may have their various physiologic mechanisms brought to a point of maximal efficiency through appropriate medical therapy or conditioning, so that they may be best prepared to survive the insults of anesthesia and surgery.

In the entire picture, the patient is the only constant factor. He is presented to the surgical team "as is." Both the anesthesiologist and the surgeon minister unto him, and in any case the patient cannot take a poor operation or a poor anesthetic. Only the physicians who are involved can provide poor surgery or a bad anesthetic.

Patients may be classified into seven grades of physical status,[2] and this system has been adopted by a committee of the American Society of Anesthesiologists so as to provide uniformity in evaluations (Tables 1 and 2).

PREANESTHETIC CLINIC

The need for a better functional assessment of patients who are to undergo major surgery has stimulated the development of the preanesthetic clinic.[11] Patients *come* to this unit, and thus afford the anesthesiologist an opportunity to take a *good look* at them. The examination can thus be relatively complete and unhurried, and equipment is available for studies of cardiovascular and respiratory functions, in particular. The apparatus that is utilized includes (1) an electrocardiograph (Twin-Viso Sanborn. Direct-writing recorder); (2) a ballistocardiograph—high frequency (Starr-type table); (3) a Gaensler-Collins spirometer (vital capacity and timed vital capacity); and (4) a gas meter for measuring maximal breathing capacity.

Additional tests may be performed as indicated. An opportunity is available for experts to secure blood samples for electrolyte determinations, and the adaptability of the patient to the position of surgery can be readily determined.

CHOICE OF ANESTHESIA

Every case that is presented for anesthesia evaluation should be individualized. The final prerogative in choosing the drugs and technics belongs to the anesthesiologist, but it is of course neces-

TABLE 1

DIVISION OF PHYSICAL STATE INTO SEVEN GRADES

GRADE 1.	No Disease Other Than Surgical Pathology No Systemic Disturbance
GRADE 2.	Moderate Systemic Disturbance Due to a) General Disease b) Surgical Condition
GRADE 3.	Severe Systemic Disturbance Due to a) General Disease b) Surgical Condition
GRADE 4.	Systemic Disorder a Threat to Life
GRADE 5.	Emergency in Patients of Grades 1 or 2
GRADE 6.	Emergency in Patients of Grades 3 or 4
GRADE 7.	Moribund Patients

TABLE 2

PHYSICAL STATUS GRADATIONS EXAMPLES

GRADE 1.	No Associated Disturbances Congenital Deformities Localized Infections Uncomplicated Surgery
GRADE 2.	Moderate Systemic Disturbance Mild Endocrine Dysfunction Mild Pulmonary Disease Moderate Anemia Cardiac Function I a or II a
GRADE 3.	Severe Systemic Disturbance Moderate Endocrine Dysfunction Electrolyte Imbalance Moderate Advanced Pulmonary Disease Cardiac Function II b or III c Renal, Hepatic or Hematologic Disease
GRADE 4.	Disturbance a Threat to Life Severe Pulmonary Disease Cardiac Function III or IV Decompensation Severe Hepatic or Renal Disease

sary for him to consult with the surgeon and the medical internist, but then, after considering the surgical needs as the surgeon has outlined them, along with the information the internist has provided and the knowledge of the patient's physical state that he has acquired for himself, the anesthesiologist decides upon that method which, in his hands, will provide the widest margin of safety.

In general, the goal of anesthesia is to provide a painless operation. That is the basic consideration, but the safety of the patient, the convenience of the surgeon and the ability of the anesthesiologist are also important. To submit the patient to an unnecessary risk and to jeopardize his life by using untried and toxic agents is beneath the dignity and the moral responsibility of any anesthesiologist. Good working conditions should be provided to the surgeon, for by that means he can be enabled to complete his work expeditiously, thus preparing for the patient's rapid convalescence.

In achieving the above-mentioned goals, it is desirable to provide a maximum of mental comfort to the patient, but if one or another of the objectives must be sacrificed, it is preferable to utilize safe agents designed to expedite surgery, at the expense of the patient's comfort.

The routine use of an anesthetic for which the physician happens to have a personal preference is to be abhorred. The choice must not be based on likes or dislikes; it must be based upon physiologic and pharmacologic considerations. Each drug has its indications, its contraindications and its field of usefulness. In diabetes, for example, ether is for all intents contraindicated simply because it quickly and protractedly upsets acid-base balance, depletes the liver of glycogen and causes hyperglycemia. Again, to administer cyclopropane to an asthmatic is inadvisable, for cyclopropane is a parasympathomimetic drug that may cause bronchoconstriction, and to superimpose it upon an asthmatic state may be hazardous. For asthmatics, ether is preferable. Now, a last illustration. When shock, hemorrhage, or prolonged surgery is anticipated, cyclopropane is the first and preeminent choice. That is not to say that other drugs cannot be employed in such a situation with some measure of success, but the others are less than ideal. Thus, the pharmacologic attributes of some agents are more satisfactory in certain situations and for certain patients than are others, and their use is accompanied by minimal stress.

Along with the above considerations, the ability of the anesthesiologist must be taken into account. There are physicians who are quite expert with one specific agent—ether, for example. Another is equally facile with spinal anesthetic technics. To demand of such men that they employ agents or methods with which they are less familiar would obviously jeopardize the patient's well being. It is preferable to allow a man who is perhaps unfamiliar or inexperienced with the technic that is advisable on pharmacologic and physiologic grounds to administer the one with which he is most capable.

Situations of that sort don't arise very frequently nowadays, for physician-anesthetists are generally well-rounded and well-trained. These men, in general, are equally expert with a wide variety of agents and technics. Thus, patients can be individualized, and one should attempt to fit the anesthetic to the patient's needs, rather than to fit the patient to the anesthetic. Every accepted drug and every established technic in the anesthesiologist's armamentarium should be utilized. Proper analysis of the patient and his condition, and the proficient administration of a selected agent and method will be most advantageous.

OTHER CONSIDERATIONS

Gastrointestinal. The gastrointestinal tract should be cleared, and this can be accomplished by ordering that the patient be given nothing orally after midnight on the night preceding surgery. On the evening before the operation, the patient should be given a cathartic, and on the morning of the operation, a soapsuds or tap water enema should be administered.

If these measures are carefully carried out, many anesthetic complications will be avoided. One of the obvious ones of these is vomiting. It is axiomatic that the stomach devoid of foodstuffs is less irritable than is a full one, and the likelihood of vomiting is minimized and the possibility of aspiration of solid food particles is eliminated by the measures that I have enumerated. An approprate statement on this subject has been made by Waters:

> For each patient who has died from postoperative pneumonia due to irritation of his lungs with the vapor of ether, dozens have died . . . following mechanical obstruction to their air passages. For each patient whose heart has stopped during anesthesia because of drug effect on the autonomic mechanism which controls it, the hearts of dozens of patients have stopped because the larynx was flooded with vomitus. Perhaps, we ought to worry more about the careful supervision of the breathing of our patients and less about our choice of drugs to prevent pain; more about our own personal knowledge and skill with a particular agent or method, and less about how someone else says he gets the best results.[4]

Patients scheduled for operation in the afternoon should not be starved. They should be allowed a light breakfast of grape juice or prune juice, Cream of Wheat, a slice of toast (no butter), and milk, weak tea or coffee with sugar. Because orange juice may remain in the stomach for a long period of time, it should not be given, and cereals containing bran or other residue are similarly contraindicated.

Attention to the respiratory tract. Before the preanesthetic medication is given, the nurse or some other ward attendant should endeavor to have the patient cough several times and generally clear his upper respiratory passages. This procedure will be found to minimize or at least decrease the incidence of postoperative pulmonary complications. Postural drainage is indicated for those patients who have chronic pulmonary diseases such as bronchitis and bronchiectasis.

Urinary training. On the day preceding the operation, or if feasible, on several days preceding surgery, the patient should practice urinating into a bedpan or a urinal. As a result, it will be found that postoperative cases of urinary retention will be diminished.

Among a large group of healthy Army personnel hospitalized for non-debilitating surgical conditions, it was found that 16 per cent preoperatively were unable to void either lying or sitting in bed, despite definite urgency. In the light of that fact, it seems illogical to expect a person who has been given narcotics, who has been anesthetized and who has undergone surgery to void all of his urine while flat on his back. In one clinical series, preoperative training effected a reduction in postoperative catheterizations from 18 per cent to 3 per cent.

Miscellaneous. Before a patient leaves the ward to go to the operating theater, his watch, rings and false teeth in the form of bridges should be removed and kept on the ward. Some anesthetists prefer that full dentures remain in place, for they feel that the normal face contour provides a better mask fit, thus insuring an optimum airway.

BIBLIOGRAPHY

1. Buskirk, J. H.: Report, American Society of Anesthesiologists, June, 1956.
2. Saklad, M.: Grading of patients for surgical procedures. Anesthesiology, **2**:281-284, (May) 1941.
3. Collins, V. J.: Editorial "The Anesthetist's Second Power." Anesthesiology, **9**:437-438, (July) 1948.
4. Waters, R. M.: Comments. News Letter, Am. Soc. Anesth., **13**:21, (Jan.) 1949.
5. Woodbridge, P. D.: Preanesthetic breakfast. Anesthesiology, **4**:81, (Jan.) 1943.
6. Collins, V. J.: Miscellaneous observations on Army personnel relevant to anesthesia (unpublished).
7. Hingson, R. A.: Comparative Negro and white mortality during anesthesia, obstetrics and surgery. J. Nat. Med. A., **49**:203-211, (July) 1957.
8. Poe, M. F.: Negro as anesthetic risk. Anesthesiology. **14**:85-89, (Jan.) 1953.
9. Elmadjian, F., Hope, J. M., and Lamson, E. T.: Excretion of epinephrine and norepinephrine in various emotional states. J. Clin. Endocrinol., **17**:608-620, (May) 1957.
10. Ard, R. W., and Twining, R. H.: Evaluation of Valsava test in bedside diagnosis of dyspnea. Am. J. Med. Sc., **234**: 403-412, (Oct.) 1957.
11. Howland, W. S., and Wang, K. C.: Preanesthesia clinic. New York J. Med., **56**:2497-2502, (Aug. 15) 1956.
12. Hannigan, C. A., Wroblewski, F., Lewis, W. H., Jr., and LaDue, J. S.: Major surgery in patients with healed myocardial infarction. Am. J. Med. Sc., **222**:628-639, (Dec.) 1951.
13. Finkbeiner, J. A., Wroblewski, F., and LaDue, J. S.: Major surgery in patients with chronic auricular fibrillation. New York J. Med., **54**:1175-1184, (Apr. 15) 1954.
14. Pfeiffer, P. H., and LaDue, J. S.: Major surgical operations in presence of bundle branch block; study of operative risk in 59 patients. Am. J. Med. Sc., **217**:369-378, (Apr.) 1949.
15. Starr, I.: Present status of ballistocardiogram. Ann. Int. Med., **37**:839-866, (Nov.) 1952.
16. Wang, K. C., and Howland, W. S.: Cardiac and pulmonary evaluation in elderly patients before elective surgical operation. J.A.M.A., **166**:993-997, (Mar. 1) 1958.

MEDICAL FILM

Mercurial diuretic therapy in edema is discussed by several leading physicians in a new color film sponsored by Wyeth Laboratories and made at the Department of Therapeutics of New York University.

The 16 mm. sound motion picture, entitled "Edema and Mercurial Diuretics," covers the types, causes and methods of treatment of edema and reviews the history of the development of mercurial diuretics.

Requests for opportunities to show the film should be addressed to the Film Library, Wyeth Laboratories, Box 8299, Philadelphia 1. A brochure containing the movie's script and selected scenes is also available.

The Present Status of Abdominoperineal Resection

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Following the publication of an article by W. E. Miles in 1908,[1] abdominoperineal resection became more and more widely practiced. During the past 20 years it has been almost unanimously accepted as the treatment of choice for carcinoma of the rectum and rectosigmoid, despite a morbidity and mortality as high as those of any other operation upon the gastrointestinal tract.

This report is concerned not with the indications for or the therapeutic effectiveness of abdominoperineal resection, but with the mortality and morbidity that attend it. Many articles in the medical literature have dealt with the operative mortality, but few have discussed postoperative complications. At the University Hospitals, preoperative, operative and postoperative factors were examined for their possible relationships to morbidity and mortality.

A more detailed discussion of the patients operated upon during the 10-year period 1947-1957 at the University of Iowa Hospitals (Table 1) has been included in an earlier report published elsewhere.[2] The objectives of our study were (1) to obtain a clear picture of the postoperative morbidity, including the kinds and frequencies of the postoperative complications; (2) to find what preoperative and operative factors may have contributed to morbidity and mortality; and (3) to provide a base line of morbidity to be used in assessing current and future technical developments.

TABLE 1

ABDOMINOPERINEAL RESECTIONS AT UNIVERSITY HOSPITALS, 1947-1957

	Number	*Per Cent*
Adenocarcinoma	286	76.9
Epidermoid Carcinoma	18	4.8
Ulcerative Colitis	35	9.4
Multiple Polyposis	7	1.9
Other	26	7.0
Total	372	100.0

Several indices or perimeters were used in measuring morbidity. One was the incidence of complications (Table 2). It should be noted that two-thirds of the patients had one or more of them. The complications were categorized as "early" (occuring before discharge from the hospital or within 60 days following the operation) and "late" (occurring after discharge from the hospital). The early complications were subdivided into "urological" and "non-urological." The frequencies were expressed as percentages and are recorded in Tables 3 and 4.

TABLE 2

POSTOPERATIVE COMPLICATIONS

1. Two-thirds of patients had one or more.
2. The complications were:
   - Early—Non-urological ..... 44 per cent of patients
   - Early—Urological ..... 19 per cent of patients
   - Late ..... 18 per cent of patients

The second index employed was the duration of the patient's postoperative hospitalization. Subtle factors such as edema, congestion and subclinical inflammation not recognized as complications are reflected in a prolonged postoperative stay. As expected, patients with no complications had the shortest postoperative hospitalizations. That group

TABLE 3

EARLY COMPLICATIONS

	Per Cent of Patients
EARLY NON-UROLOGICAL COMPLICATIONS	
Abdominal wound	13.0
Ileus	9.7
Perineal wound	8.0
Pulmonary	6.8
Thrombophlebitis	5.1
Gastric dilatation	4.5
Cardiovascular	4.5
Death	4.1
Colostomy	3.4
Mechanical obstruction	2.8
Peritonitis	1.2
Toxic psychosis	0.6
Vaginal perineal fistula	0.6
EARLY UROLOGICAL COMPLICATIONS	
Retention	17.0
Infection	4.5
Urethral perineal fistula	2.3
Uremia	1.2

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TABLE 4

LATE COMPLICATIONS

	Per Cent of Patients
Colostomy strictures	11.4
Perineal wound	4.0
Colostomy hernia	2.3
Abdominal wound	1.7
Ileus	1.2
Mechanical obstruction	1.2
Urethral stricture	1.2

averaged 15.7 days; the patients with one or more complications averaged 26.5 days; and the average postoperatively stay for all patients was 21.9 days.

Mortality rate is another index of morbidity. Largely as a result of refinements in surgical technic, advances in blood and fluid replacement, and improvements in anesthetic methods, the mortality rate for abdominoperineal resection has been gradually lowered[3-8] (Table 5). It is noteworthy that in 1931 Miles reported a much lowered mortality rate, demonstrating his own remarkable technical ability.[3] His 1931 rate, indeed, compares favorably with current results. In general, the mortality rates reported from private clinics are better than those from teaching institutions. Differing patient selection and operative indications may be partially responsible for that difference, but it should be remembered that all operations in the private clinics are done by experienced surgeons, whereas in the teaching institutions residents perform many of the procedures.

TABLE 5

OPERATIVE MORTALITY

Series	*Dates*	*Number*	*Per Cent*
Miles*	1902-08	12	41.5
Miles*	1908-31	400	7.6
Columbia	1916-40	219	23.2
Michigan	1936-42	269	8.9
Jones*	1938-42	261	4.5
Mayo*	1940-48	1,095	3.6
Columbia	1940-50	270	7.0
Iowa	1947-51	176	9.1
Mayo*	1952-55	304	4.9
Iowa	1952-56	196	4.1

* Private practice

TABLE 6

MORTALITIES WITHIN 60 DAYS OF OPERATION

Pulmonary embolism	9	
Obstruction	4	
Renal failure	3	
Peritonitis	3	
Pneumonia	3	
Unknown cause	2	
Total	24	(6.5 per cent)
1947-1951 (176 patients)	16	(9.1 per cent)
1952-1956 (196 patients)	8	(4.1 per cent)

In one-third of the University of Iowa mortalities, the principal cause of death was pulmonary embolism (Table 6). In only four of these patients was there evidence of thrombophlebitis or phlebothrombosis prior to the fatal episode. The difference between the first and the second five-year period deserves attention. The one significant change in technic that occurred during that interval was the adoption of the two-team approach. It is reasonable to suppose that the reduction in operating time, the lessened blood loss and the reduced stress have been reflected in a lowered morbidity and mortality.

PREOPERATIVE FACTORS

Some preoperative and operative factors that were found to be related to postoperative morbidity and mortality have been discussed in an earlier paper,[9] but I shall review them briefly.

Because of the anatomical differences—a larger pelvis and an interposed uterus—one might reasonably anticipate a lower morbidity and mortality in female than in male patients. Surprisingly, however, the average postoperative stay was slightly longer for women than for men. The overall complication incidence did not differ significantly for the two sexes, but the incidence of urologic complications and the mortality rate were about twice as high for men as for women.

The duration of the postoperative stay, and the overall and urologic complication frequencies appear to be related directly to age. The high mortality rate among the eight patients more than 79 years of age means little because of the small number of patients in that group.

The findings suggest that the single most important factor in the formulation of a preoperative prognosis must be the patient's history of weight loss. The length of postoperative stay, the frequencies of all complications and the mortality rate were all markedly increased in patients who had lost 20 or more pounds of weight, as compared with those who had lost less than 20 pounds or no weight at all. The mortality rate was three times as high in those who had lost 20 or more pounds of weight. The plasma proteins are another measure of nutrition. The group of patients with values of six grams per cent or less had longer postoperative hospital stays, a higher complication incidence and a higher mortality rate, as compared with those who had normal plasma protein values.

The most interesting finding, however, derives from a comparison between two groups of patients

having plasma protein values of 6.6 Gm. per cent or higher, one group with no weight loss and the other with weight losses of 10 pounds or more (false normal values related to contracted blood volumes). In the latter group, all the indices of morbidity were increased, the mortality rate being four times as high. The importance of the role that a contracted blood volume plays in the genesis of complications in those patients is also supported by a comparison between those patients who received no blood before the operation and those who were given blood. All the indices of morbidity were increased in the latter group. The indices were highest in the transfused patients who had histories of 10 pounds or more of weight loss. These findings therefore suggest that maximum morbidity and mortality can be expected in those patients with low plasma proteins, histories of weight loss and low hemoglobin levels. Careful attention should be directed to the correction of these nutritional deficiencies prior to operation.

SURGICAL FACTORS

A midline, left paramedian or transverse oblique incision was used in these patients. The incidence of wound complications was least in patients having midline abdominal wounds. In only 10 per cent of those individuals was the colostomy brought out through the incision as compared with 45 per cent of the patients with transverse and paramedian wounds. It seems, therefore, that the most important factor is not the type of the incision, but whether or not the colostomy is brought through it or through a separate wound. The colostomies were managed in two ways: (1) a clamp was left in place for 24 hours and then removed; or (2) the transected end of the colon was opened and sutured at the time of operation to the adjacent skin edges. The duration of the postoperative stay and the incidence of wound complications were substantially less in those patients with primary colostomy suture.

There has been considerable discussion concerning the best method of perineal wound management. In these patients, the wound was packed over rubber sheeting with gauze, or was closed loosely with interrupted sutures and drained posteriorly. The duration of the postoperative stay was shorter when the perineal wound had been closed *per primam,* but the incidence of wound complications was about two times as high as in those patients with packed perineal wounds. If there is contamination of the perineal wound and pelvis during the operation, if complete hemostasis is not achieved and if the tumor has been a bulky one requiring extensive dissection, the wound should be packed open. A higher complication incidence can be anticipated if such wounds are closed. When the lesion is small, hemostasis is complete and no contamination has occurred, primary closure will result in lowered morbidity. As regards the findings that have been published, it should be remembered that cases are selected for primary closure as suggested above.

The most common complication was urinary retention. On the average, the indwelling catheter was finally removed on the eleventh postoperative day. Retention was considered to exist when a catheter was required after the twenty-first postoperative day. Retention occurred twice as often in the male as in the female patient, as might have been anticipated on an anatomical basis.

Clinical and experimental observations suggest that the single most important factor leading to retention is disturbance in the anatomical relationships at the base of the bladder. In the male patient, it is frequently necessary to resect a portion of the prostate and to carry the dissection anteriorly, thus partially mobilizing the bladder base. Disruption of the normal function of the internal sphincter follows. Infection associated with stasis (fomented by late ambulation), infection arising from surgical manipulations in the area of the prostate, and the presence of an indwelling catheter play important roles in causing retention. Incipient prostatism is frequently brought about by the patient's being confined to bed. Innervation disturbances of the bladder secondary to the operation are of much less importance in the genesis of urinary retention than are the factors that I have enumerated. Postoperative urinary retention will be reduced to a minimum if the surgeon carefully avoids unnecessary disturbance of the anatomical relationships at the bladder neck, and if all measures are taken to reduce infection.

SUMMARY

The frequencies of complications, the duration of postoperative hospitalization and the mortality rate have been used as indices in a study of postoperative morbidity in 372 patients upon whom abdominoperineal resection had been performed

Morbidity was found to have been highest in male patients with weight loss, and low plasma protein and low hemoglobin levels.

The findings suggest that the incidence of wound complications and overall morbidity will be reduced to a minimum by bringing the colostomy through a separate wound and suturing it directly to the skin edge.

The results of this study suggest that the closure of the perineal wound at operation, when there is no pelvic contamination and when hemostasis is complete, will reduce postoperative morbidity and hospitalization time.

REFERENCES

1. Miles, W. E.: Method of performing abdominoperineal excision for carcinoma of rectum and of terminal portion of pelvic colon. Lancet, 2:1812-1813, (Dec. 19) 1908.

2. Buckwalter, J. A., Shropshire, R., and Joiner, B. A.: Morbidity of abdominoperineal resection. Surg., Gynec. & Obst., **101**:483-488, (Oct.) 1955.

3. Miles, W. E.: Pathology of spread of cancer of rectum and its bearing upon surgery of cancerous rectum. Surg., Gynec. & Obst., **52**:350-359, (Feb. No. 2A) 1931.

4. Grinnell, R. S.: Results in treatment of carcinoma of colon and rectum; analysis of 2,341 cases over 35-year period, with 5-year survival results in 1,667 patients. Surg., Gynec. & Obst., **96**:31-42, (Jan.) 1953.

5. Coller, F. A., and Ransom, H. K.: Carcinoma of rectum; conclusions based on 12 years' experience with combined abdominoperineal resection. Surg., Gynec. & Obst., **78**:304-315, (Mar.) 1944.

6. Jones, T. E.: Complications of one-stage abdominoperineal resection of rectum. J.A.M.A., **120**:104-107, (Sept. 12) 1942.

7. Mayo, C. W.: Combined abdominoperineal resection. Am. J. Surg., **79**:72-75, (Jan.) 1950.

8. Beahrs, O. H., and Congdon, G. H.: Morbidity and mortality following combined abdominoperineal resection, with special reference to closure of posterior wound. Surg. Clin. North America, pp. 999-1007, (Aug.) 1957.

9. Buckwalter, J. A.: Abdominoperineal resection morbidity; preoperative and operative factors. AMA Arch. Surg., **74**:770-779, (May) 1957.

A General Practitioner's Work With

Depressed Patients

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THE GENERAL practitioner constitutes the first line of defense against mental illness. Because he is in a position to know his patient's physical, intellectual and emotional makeup and family background, such a doctor can detect minor eccentricities rather promptly, and by treating them promptly, can forestall more serious disturbances.

Every individual becomes distressed over the calamities that befall him. Even Christ cried from the cross, "Lord, why hast thou forsaken me?" That was an expression of dejection. Usually, there are good results when unhappy people are motivated to correct the situation which has been responsible for their distress, but hopelessness—an inclination to give up—must first be eradicated.

Depression grows clinically significant when it becomes chronic or when the profoundness of the mood becomes out of all proportion to its cause. The family physician is often aware of his patient's basic personality, his domestic situation, his financial problems, his bereavements, his physical impairments and his disappointments. Often such a doctor knows the genetic and early-childhood influences which have made his patient what he is. In other words, he remembers what sort of person the patient was as a healthy individual, knows what—in addition to pathogenic bacteria—can have made him ill, and thus is in a particularly good position to assess the seriousness of the emotional component of his present difficulties.

Doctors today, no matter what their fields of endeavor, are increasingly aware of psychiatric disturbances. To reach maximum effectiveness, they know that they must not be content with the proper treatment of physical ailments, but must deal also with the mental and emotional illnesses that often are major parts of their patients' problems.

Depression is defined as "an emotional illness in which there is an established and more or less chronic condition evidenced by a pathological dejection of mood." It is a condition of which the patient himself may not be aware, and one that frequently is unnoticed by his family and friends. Thus, the patient is unlikely to bring it, specifically, to the physician's attention. If he talks about it at all, the chances are that he won't really be aware of doing so. His somatic complaints may cover a wide range of symptoms and mask his basic emotional disturbance. The symptoms he recites may at times seem to typify those of a true organic physical disease, and only through thorough physical and laboratory examinations can the physician arrive at the correct diagnosis —depression.

Fortunately, there are certain symptoms that strongly suggest depression. Among them are an inability to sleep, especially a habit of early-morning awakening; loss of appetite; and increased fatigue. Physicians are often able to detect a patient's tendency to withdraw from people. Loss of ambition and loss of interest in the work that he does are important symptoms. Often, such a patient expresses a lack of self-confidence or is frequently self-deprecatory.

These thoroughly unhappy and miserable people are much in need of proper help, but because of the deceptiveness of the symptoms that they recite, they may be treated for a somatic disease instead. In the past, when chronic appendicitis was considered a disease entity, I am sure that many depressed patients reporting right lower quadrant abdominal pain were subjected to appendectomies. Thereafter, as a result of the shock effect of surgery, the depressed patients were apparently improved, but then they relapsed and experienced an intensification of their symptoms. Fortunately, most surgeons today are cautious in their selection of patients for surgery, insisting upon accurate preoperative diagnoses based on adequate physical and laboratory findings.

CHILDREN'S PROBLEMS

In dealing with people of all ages and under all situations, the general practitioner must be able to discern what is normal or abnormal in the emotional response for an individual of any given age. He sees many children who have developed depressions because of starvation for the love and recognition that their parents should give them. Later in life, these emotionally-deprived individuals may develop true pathological depressions.

Often such children's parents are too busy or are too preoccupied with their own depressed thinking to provide an ideal home environment. In situations of this sort, if the family physician is alert to what is occurring, he can often give helpful advice so as to enable the parents to promote healthy personality growth in their children. Most physicians have observed what often happens to the first child on the advent of a second youngster. The first child often overacts in an attempt to assure a continuation of the recognition and love which have been his and which are so important to him. If, despite his efforts, he is chronically ignored, or if he is expected suddenly to grow up, this child withdraws into his shell and, among other mistaken attitudes, develops a dislike and a mistrust of his parents. Here we have the beginning of a depressed personality. Thus, it is wise for the doctor to alert parents to the possible ill effects that can result from the introduction of a new member into their home. If the parents will share their anticipation of the new arrival, and if they will continue to manifest the same affection and attention to the older child after the sibling's birth, they can do a great deal to prevent personality damage. Wealth isn't essential to a child's emotional security, but love and attention are!

I am firmly convinced that when a child has been hospitalized, his parents should be with him for as much of the time as the hospital regulations allow. Psychological trauma is a far greater danger than is the possible introduction of new bacteria into the hospital. The sick child is physically uncomfortable, and if under those circumstances he is abandoned in an utterly strange environment, devoid of the parental affection to which he has been accustomed, he is likely to suffer seriously from anxiety and may enter upon a profound depression. I have seen at least two children in whom a depressed emotional makeup had its inception as a result of such a hospital experience. Many hospitals are now allowing parents to stay with pediatric patients. This is a forward step.

OBSTETRICAL DEPRESSIONS

The general practitioner frequently encounters depressions in the course of his obstetrical work. Some women are depressed because their pregnancies are unanticipated and/or unwanted. Less frequent, but often more profound, are the depressions of women who have not become pregnant. For those with a sterility problem, the answer may be a thorough physical examination to determine its etiology, including examination in a sterility clinic if indicated. Often such measures result in a conception, but if not, the woman and her husband become better reconciled to their situation, and frequently go on to adopt children and live happily.

As for women who are disappointed at discovering that they are pregnant, I recall a 45-year-old patient whose youngest child was 22 years of age. She was morbidly depressed to the point of threatening suicide, but with the counseling support afforded by a psychiatrist, she went through an uneventful labor. Whenever I see her now, she tells me that she and her husband don't know what they could have done without their youngest child. Besides, as a result of this experience, both she and her husband have developed more out-going and pleasant personalities than they had possessed earlier. The mother's only complaint is that she must live through another 13 years of PTA membership.

Usually, kindness and understanding on the part of the physician can help the patient who is depressed as the result of becoming pregnant. Often she is fearful that she is unable to meet the added responsibilities of parenthood. Occasionally, as a result of old-maid tales, she is fearful of the birth process. If early in her pregnancy the physician is able to discern and help to resolve such a patient's anxiety and depression, he may avert the possibility of a profound, pathological depression during the postpartum period.

EMOTIONAL ACCOMPANIMENTS OF CHRONIC DISEASES

The physical illnesses of adults are not anticipated, are unpleasant events, frequently result in economic strain, and often disrupt the pattern of family life. Therefore, it is not surprising that almost invariably an illness in an adult results in some degree of depression. Whether the difficulty is a broken ankle, pneumonia, coronary artery thrombosis or something else, the depression adds to the patient's discomfort and delays his convalescence.

Most physicians have found it advantageous, for that reason, to outline for the patient what his illness is, in general terms, what its course is likely to be, and what can best be attempted in the way of treatment. Most frequently, future uncertainties rather than present realities are what give rise to abnormal concern.

Several diseases are notorious for their accompanying mood depressions, probably because of their long duration, low-grade chronicity and depreciation of physical well-being. The list includes brucellosis, infectious mononucleosis and hepatitis, among others. But sometimes the physical ailment seems merely an excuse, rather than a cause. I once had a women patient, an especially dependent person, who had lost her most stabilizing influence when her husband died. She had

a minor condition that needed surgical correction, and chose to go to a surgeon of national repute. As she left my office after I had arranged an appointment with him for her, she told me that she would never come back alive, and just as she had predicted, on her ninth postoperative day, she died. The surgeon, much disturbed, telephoned to tell me of her death. He said that in spite of a very thorough postmortem examination, no cause of death could be found. There may have been physical reasons for her dying, but I have always felt that hers was a case of mental suicide.

I once had a spinster patient some 40 years of age, a melancholic soul unendowed with beauty, who suffered severely from ragweed asthma. Her symptoms were quite understandable, for she had shown extreme sensitivity to ragweed antigen, and thus it took me several trips to her farm to treat her attacks of out-of-season asthma and severe mental depression before I learned the real mechanics of her difficulty. She wanted the security that a husband would provide her, and time and again, when her hired men learned of her intentions, they left precipitously and she had a recurrence of her affliction. Finally, she found an employee who was willing to marry his boss, and since then she has had no off-season asthma, and hasn't again hit bottom in her depression. Hers, I believe, is a perfect case of rejection's having caused dejection.

Another asthmatic patient of mine had been given the job of caring for her parents, one of whom was a long-time invalid, apparently from some sort of nervous disease. Her lot had been almost spectacularly unfortunate. Her only sibling, a brother, had been crippled by polio and was sent to college so that he might prepare to make a living as a lawyer. During her youth and young womanhood, her parents had refused her all opportunities for social life with people of her own age, apparently for fear she might marry. At 47 years of age, because of severe uterine bleeding, a dilatation and curettage became necessary, and shortly afterward she began to have asthma. From the onset, it was a most intractable problem. The allergist who saw her in consultation stated that it was of intrinsic origin, but she refused to accept psychiatric help.

About a year ago I met her in church, and told her I was happy to see that she was breathing more comfortably. But my remark seemed not to be to her liking, and about an hour later, when I had returned home, she called me and said in a wheezing voice, "I want you to know that I still have my asthma." I am sure that the poor woman receives her only joy from the sympathy that her asthma provokes.

For patients of the climacteric age, the general practitioner is in an effective position to allay many fears and anxieties. By explaining the biological changes that occur normally during this phase of life, and by outlining the resultant symptoms, he usually can reassure the patient completely. The fund of misinformation that lay people acquire concerning the climacteric must engender many of the depressions that are prevalent in this age group.

MENTAL ILLNESS IN ELDERLY FARMERS

Elderly people constitute another group whose mental ills the general practitioner can prevent or alleviate. It has been my experience in practicing in a predominantly rural area that few people make preparations for retirement. I have known many farmers who have worked until their effectiveness was spent, and who have come to live in town without having developed any hobbies and without having acquired any taste for travel. Such people aren't physically or emotionally prepared for a sedentary life, and they often feel useless and unimportant. Frequently a grave mental depression ensues, and the person wilts both mentally and physically.

It has been said that mental deterioration in the aged occurs not so much because of arteriosclerotic brain changes as because of a cessation of creative living. Thus, when my patients are yet young, I counsel them to develop hobbies and outside interests, and to learn to travel. For those whose sole interest remains occupational, I advise a slow-down in preference to retirement.

Farming today is the third most dangerous occupation in this country, and located as I am in a rural area, I see the results of many farm accidents. Many factors contribute to such mishaps. There are those which are inherent in the operation of any heavy machinery, extreme fatigue from long hours of work, a tendency to hurry too much and slowed-down reflexes, such as those of the elderly men about whom I have been speaking. But depression and a consequent inattention can constitute a still further hazard.

Because a farmer is necessarily isolated, his depression is especially likely to go unnoticed, whereas the emotional status of accident victims in industry is usually thoroughly studied. It would seem that a study of the emotional factors involved in farm accidents would be most revealing. To be of value, any such study would of course need to be made under the supervision of psychiatrists and psychologists, but thereafter, I am convinced, the psychogenic factors in farm accidents would be more adequately appreciated.

I know a farmer who, because of the lateness of his harvest and his inability to get help, had become very severely depressed about getting his corn picked. He was working long hours to complete the task, and he came home one noon to find that his lunch wasn't ready. In his anxiety to get back to his task, he grabbed a glass of milk and a piece of bread, ate hurriedly and returned to the field in a state of mixed anger and dejection. He climbed to the seat of his corn picker and recommenced his work. A short time after-

ward, in a hasty attempt to clear the mechanism when it had become clogged, he caught his hand and forearm, with the result that he lost a portion of that extremity. That accident could be attributed only to his acute emotional disturbance.

DEPRESSION NEED NOT ACCOMPANY INCURABLE ILLNESS

The patient known to be terminally ill is usually beset by emotional turmoil. His family, overwhelmed by their anxiety and concern, often further tend to destroy any serenity in the patient's environment. Repeatedly, I have found that it pays the physician to be completely honest and forthright with such an individual. If he is alert, I believe the patient should be told in gentle terms that he is unlikely to survive. It can be pointed out to him that we all must eventually die. The patient and his family should be reassured that the process of dying—lingering though it may be—usually need not be painful or unpleasant.

I am sure that all physicians see patients who are deeply worried and depressed over the possibility that they are afflicted with an incurable illness, but often when these people have been told that there is no hope of their recovering, they exhibit a profound emotional maturity in accepting the inalterability of their situation. In contrast, I might mention that in two instances, families denied me the right to tell the patient about his cancerous condition. Both of those patients died mentally depressed, feeling neglected and skeptical about their doctor, their family, their friends and their God. It seems to me basic that uncertainty causes emotional disturbance more frequently than does unwelcome truth. A potent ally in the care of physically and emotionally sick people is the clergyman. He often does much to provide solace to those who are terminally ill.

POTENTIAL SUICIDES

Suicide is evidence of the fact that despair and despondency can be severe, and depression is said to be the most common psychiatric cause for it. Patients who have recovered from deep depression and who have also experienced severe physical pain say that pain from a bodily ailment cannot compare with the agony one undergoes during a depression.

It is probable that most suicides could be prevented if proper detection and suitable treatment of the suicidally-inclined were effected. According to the Iowa State Department of Health, there were 317 reported deaths from suicide in the state during 1956, or 11.8 per 100,000, a somewhat higher figure than the national average. If the true numbers were available, they certainly would be much higher, and furthermore, the actual suicides compose only a few of the people who have undergone intense mental suffering.

Most physicians, I am sure, are constantly in fear that some one of their patients who apparently is only mildly depressed will choose self-destruction. My own most unpleasant memory concerns a 19-year-old boy whom I saw during my early years in medicine. Two of his siblings had previously destroyed themselves, and this patient seemed moderately dejected and admitted having suicidal thoughts. I drove to his parents' farm and urged them to place him in a center where he might receive psychiatric care, and when my pleas were disregarded, I warned them to watch him carefully. He hanged himself two weeks later. I have often regretted my failure to call on the family's minister for help, for perhaps if I had, the young man might have lived and recovered his emotional health.

After I have gained a depressed patient's confidence, I find it helpful to ask him whether he has suicidal thoughts. It is my belief that I have always received true answers. I am convinced that any patient who admits to thoughts of suicide should be immediately referred to a psychiatrist as an emergency case.

CASES TO TREAT AND CASES TO REFER

Fortunately, most depressions that come to the attention of the general practitioner are superficial ones that have resulted from situational experiences, but frequently he must use his utmost diagnostic skill to determine their degree. He must be diligent in taking a detailed history, he must conduct a careful physical examination, and he must conduct all of the indicated laboratory procedures in an effort to differentiate the depression from a physical abnormality. Many of these patients are convinced that they have an organic disease, and thus only by taking a detailed history and performing a thorough examination can the physician put himself in a position to convince them of the true nature of their affliction. By his thoroughness in taking the history and doing the physical examination, by his show of interest in the patient's welfare and by his display of understanding of the patient's problem, he can usually gain the individual's confidence.

By allowing the mildly depressed patient to talk out his problem, the physician can achieve a therapeutic purging of unhealthy thoughts, and furthermore, he can help the patient to acquire insight into the causes of his mental state. The doctor is justified in assuring the patient that depressions are common, and furthermore that he needs have no fear of "losing his mind." When indicated, a judicious use of amphetamine and barbiturate drugs will provide additional benefits.

Many depressed patients should be referred to a psychiatrist for treatment. Among the indications for referral are the following: (1) depression too deep to permit the patient's responding at least moderately to happenings in his surroundings; (2) failure to respond within a few weeks to the office therapy provided by the non-psychi-

atric physician; (3) depression that has been present for a long period of time; (4) depression that is intrinsic, rather than situational; and (5) a family history of suicide and/or admitted thoughts of suicide.

In making a referral to a psychiatrist, I have found it helpful to tell the patient and his relatives that the mind, like the body, frequently is affected by illness. I tell them further that most mental illnesses, like physical ones, are treatable and curable. I try to impress them with the fact that the earlier that treatment is provided, the greater are the ease and promptness of recovery. In addition, I tell patients that I am referring them to a psychiatrist because such a physician has special training in the treatment of mental illness. Personally, I abhor the subterfuge of speaking of a psychiatrist as a "nerve specialist," and I am sure that psychiatrists share my feeling.

When a patient is incompetent as a result of his illness, it is important to call his relatives' attention to that fact, and to impress upon them that it is their duty to secure proper treatment for him. It would seem, however, that a revision of our archaic laws pertaining to the commitment of patients to our state mental institutions is long overdue. The present procedure for committing an unwilling patient is cruel and stigmatizing both to him and to his family. His being deprived of citizenship rights during the interval between his return home and his being legally declared cured, furthermore, often results in added social and financial trauma.

The general practitioners of Iowa are, I know, grateful that their mentally ill patients are beginning to have the benefits resulting from the expansion of facilities and from the employment of a more nearly adequate number of workers trained in psychiatry. Much, however, remains to be accomplished if we are to provide suitable facilities and services for all who need help. Both the professional and the lay segments of our population need further education as to our state's needs in that regard, if the program is to have adequate support. Increased financial support from both private and public sources will result in an eventual financial saving, but of more importance, it will return many mentally rehabilitated individuals to normal, effective living. The essence of success is total cooperation.

I should like to quote the famous actress Marie Dressler on this point. She said, "Never one thing, seldom one person can make for success. It takes a number of them merging into one perfect whole."

State University of Iowa College of Medicine

Clinical Pathologic Conference

April 16, 1958

SUMMARY OF CLINICAL FINDINGS

THE PATIENT was first admitted to the University Hospitals in 1951 at the age of 56 years. At that time she was diagnosed as having intrinsic bronchial asthma and mixed degenerative and rheumatoid arthritis, and she was also noted to have a hyperplastic maxillary sinusitis. She was started on Amodrine, aminophylline suppositories and an Adrenalin inhaler. In August, 1951, she returned for a submucous resection, and her subsequent recovery was uneventful. In April, 1952, she returned with complaints of wheezing, shortness of breath and unproductive cough. Her medication was changed to Glythenoate tablets. She was given a Norisodrine inhaler and discharged. During this hospitalization, she was noted to have minor T-wave changes on an electrocardiogram "suggestive of the possibility of myocardial disease."

Her next admission was six years later. At that time, she reported that her asthma had been controlled fairly well by the medications until about a year before. At that time, cortisone had been given her, and she reported that there had been a marked improvement in her asthma. However, she became aware of a gradually increasing generalized edema, and this had become moderately severe three months before her admission. She had been hospitalized elsewhere, and the cortisone had been changed to prednisone. The substituted drug had then produced a diuresis and a loss of 40 pounds in one month. Unfortunately, her asthma began to recur. Thus far, she had had nothing more severe than nocturnal episodes of wheezing, but she reported that for the last three or four months she had been aware of pain in her left shoulder, along with numbness, tingling and burning in both hands and arms. She felt that her neck was stiff. There had been a similar burning in her feet.

The physical findings on her admission at that time included:

Increased AP diameter of the chest, with decreased diaphragmatic excursions and distant breath sounds

A pedal edema of 1 + bilaterally

Swelling and crepitation of both knees, more marked on the left

Parasthesiae and sensory loss in the distal portion of both upper extremities

Marked loss of strength throughout both upper extremities

Generalized hyperreflexia, with bilaterally positive Babinski signs

Marked atrophy of the thenar and hypothenar eminences bilaterally.

Her blood pressure at that time was 164/96 mm. Hg., and her pulse rate was 96 beats per minute. A routine hemogram was within normal limits, except for an 18 per cent eosinophilia and a sedimentation rate of 51 mm. per hour. The urinalysis was negative. The blood serology was negative.

The chest x-ray revealed no significant abnormality. X-rays of the cervical spine revealed moderately advanced degenerative arthritis, with "slight narrowing of the intervertebral disc spaces between C5-C6 and between C6-C7." X-rays of the knees revealed extensive degenerative changes, with lipping and narrowing of the joint spaces. A lumbar puncture revealed an initial pressure of 140 mm. Hg. The fluid was clear and colorless, it contained no cells, and its quantitative protein was 47 mg. Jugular compression produced a prompt rise and fall on either side. Gastric analysis revealed ample free acid, without histamine.

The patient was transferred to Neurology, where a myelogram was done. No specific block was determined, but severe "ventral bar" formation was demonstrated at several levels of the cervical spine. She was discharged two months after admission, but returned two months later because of an acute respiratory infection, with a temperature of 103° F., difficult forced breathing, moist rales throughout both lung fields and productive cough. The hemogram was normal, though the sedimentation rate was 60 mm. per hour. There were 7 per cent eosinophils on the differential smear. With penicillin and symptomatic therapy, the temperature dropped to normal, the patient's symptoms cleared and she was discharged two weeks later. The sputum cultured during this hospitalization contained hemolytic Staphylococcus aureus and diplococcus Pneumonia.

One month later she was admitted, once more in acute respiratory distress. A few days earlier she had begun to cough and produce copious sputum. She vomited frequently, and was having frequent severe asthmatic attacks. Much of the time, she had to sleep sitting up.

The positive physical findings at this time included emphysema and coarse rales and rhonchi throughout both lungs. There was a tachycardia of 124 per minute, and the blood pressure was 180/110 mm. Hg. The respiratory rate was 32 per minute. The liver was palpable in the abdomen, but the upper edge was down. The neurologic changes were virtually identical with those observed during earlier examinations.

The white count at this time was 12,500/ cu. mm., with 55 neutrophils, 11 eosinophils, 4 basophils, 26 lymphocytes and 4 monocytes. One day later, the eosinophils had risen to 27 per cent of the differential count. The urinalysis revealed 3 + albumin, and the microscopic examination showed masses of white blood cells and gram-negative rods. The chest x-ray revealed no gross evidence of pneumonia. A culture of sputum grew out Escherichia coli only. An electrocardiogram revealed left ventricular hypertrophy and evidence of an old anteroseptal infarction. The blood urea nitrogen was 19 mg./100 cc., and the creatinine was 1.0 mg./100 cc.

The patient was treated with a variety of bronchodilators and expectorants, and was given penicillin, Gantrisin and streptomycin. The respiratory distress gradually became more severe, in spite of all this medication. She was then given intravenous ACTH, adrenal steroids and digitalis. The urine continued to be loaded with white cells, there were numerous hyaline and granular casts, and there was a positive test for albumin at all times.

Five days after admission, it was noted that she had become unresponsive, and she remained comatose until her death a few hours later.

SUMMARY OF CLINICAL DISCUSSION

Dr. R. A. Utterback, Neurology: We are dealing today with a patient who suffered with asthma for some time. I think there is no doubt about that. As time went on, her asthma became more and more difficult to control, and eventually—some six or seven years after we first examined her—she died in this hospital in "status asthmaticus." In other words, she did not respond to any of the medications ordinarily used.

Now this asthma is of some interest to you, I think, but our primary reason for discussing this patient is the associated illness that she had. You may have noticed that in connection with her second admission, some mention has been made of her having been aware of pain in her left shoulder, along with numbness, tingling and burning in her hands and, in particular, her plams. She felt that her neck was stiff.

On physical examination, it was found that she had paresthesiae and sensory loss in the distal portions of both upper extremities. She had marked loss of strength in both arms, and yet there was generalized hyperreflexia and atrophy of the thenar and hypothenar eminences bilaterally. She had bilaterally positive Babinski signs. Although it isn't mentioned specifically in the protocol, I suspect that she also had wasting of the interosseous muscles. These things usually go together.

This picture was one that might well be de-

scribed as amyotrophic lateral sclerosis. These are the signs we usually see: wasting of the hands, marked weakness and hyperreflexia. There is a real reason for thinking that this was *not* amyotrophic lateral sclerosis, however. The patient had some sensory changes also, and sensory changes are not supposed to occur, or if they are present they are no more than very mild in amyotrophic lateral sclerosis. During the hospitalization period of which I am speaking, x-rays of the cervical spine revealed moderately advanced degenerative arthritis, with narrowing of the intervertebral disc spaces between C5-C6 and between C6-C7. We have learned to associate this abnormality with symptoms such as this patient presented. A myelogram was done, and it demonstrated a significant narrowing of the vertebral canal at several levels of the cervical spine. For this reason, we felt that this patient was of special interest—i.e., for the association of this nervous system disease with degenerative arthritic changes.

Perhaps Dr. Seebohm will comment on the pulmonary changes. Later, I should like to talk more about these changes in the vertebral column and the secondary effects which may be produced in the central nervous system.

Dr. Paul M. Seebohm, Internal Medicine: This lady is said to have had bronchial asthma for about eight years, with nasal symptoms and some evidence of sinusitis during the same period. About 1½ years prior to her final admission, she was given cortisone continuously in doses of approximately 50-100 mg. per day. One year of this treatment completely relieved her asthma, but produced swelling in her legs and a considerable increase in her weight. Six months before her final admission, she was changed to prednisone, and lost 40 pounds in a period of several weeks. Her asthma was controlled equally as well on 10 mg. of prednisone as it had been on 75 mg. of cortisone. When the dose was reduced to 5 mg. per day, the asthma recurred.

There were several admissions between then and her final entry into the hospital, but there are just two of them that I should like to mention—the next-to-the-last and the last ones. In October, she was admitted with pneumonia, manifested by a fever of 103° F. and hemolytic Staphylococcus aureus and Pneumococci in her sputum. It was treated successfully by means of antibiotics. The records aren't clear, but they contain an indication that she had taken no steroids between August and her October admission. When she was discharged from the hospital in October, she was given aminophylline suppositories, ephedrine by mouth and potassium iodide. In spite of these drugs, she had considerable asthma and was readmitted for the last time on November 20.

It seemed clear that her main problem in this terminal period was bronchial asthma. Her white count was 12,000, and 20 per cent of the cells were eosinophils. At the same time, it was believed that an infectious bronchitis was present, and it was treated with antibiotics. In addition, during the first two days of hospitalization, bronchodilators and tranquilizers were given. Her asthma then became so severe that her physicians elected to start hormonal therapy. She was given 40 mg. of ACTH intravenously. This is equivalent to about 150 mg. intramuscularly. The following day she received 100 mg. intramuscularly in four divided doses, and the next day the same. Instead of getting better, she "deteriorated." She was then given prednisone by mouth, and 100 mg. of Solu-Cortef intravenously, followed by prednisone, for the next two days. However, the next day she was unresponsive and had stopped coughing. The following day, she died.

Our experience with ACTH and cortisone in severe asthma is that we can usually reverse the process if we are given enough time, and we feel that seven days is enough time. Now, there were no further eosinophil counts done, and so we do not know what happened to the eosinophils in response to the ACTH. We may ask whether this lady had sufficient atrophy of her adrenal glands because of the continuous cortisone therapy during the previous 1½ years so that they failed to respond to the ACTH. During the last three days, when it was realized that something of that sort might have occurred, the adrenal steroid was given, but it may then have been too late to reverse the course of the disease. We shall be interested in seeing whether the pathologic study of the adrenal glands confirms this mechanism.

I might say that this is the first chart I have ever reviewed which I felt showed asthma to have been the major cause of death. Since no opium, Demerol or morphine had been given, we can't blame the final drug for inducing respiratory suppression, as we often do when patients have died in asthmatic attacks.

Dr. Carl L. Gillies, Radiology: The films of the chest are unremarkable, except for cardiac enlargement. We did not examine the patient at the time of her terminal illness, and thus we cannot say what the findings were at that time.

The plain films of the spine demonstrated arthritis, with some disc narrowing. The myelogram showed occlusion in the cervical area, with protrusion of the discs in the lumbar area. Pantopaque, introduced in the lumbar area and allowed to flow into the cervical area and then back down again and out, demonstrated the protrusion of the discs in the cervical area and delineated some degenerative changes.

Dr. Edward E. Mason, Surgery: Normally, would one see only a solid prong of dye up into the cervical area?

Dr. Gillies: Normally, one would not see the transverse defects.

Dr. J. M. Layton, Pathology: There was severe

acute tracheobronchitis in connection with well-developed bronchial asthma and considerable emphysema. Bronchopneumonia was present. It was patchy, not particularly severe, acute in some areas and organizing in others. Although pneumonia was present, I believe it had little to do with the patient's death.

Dr. Gillies has demonstrated the osteoarthritis which was present. It was especially severe in the cervical spine, where there was compression of the spinal cord. Cord lesions above the site of compression consisted chiefly of demyelinization of the fasciculus cuneatus, whereas below the site of compression, the corticospinal tracts were involved primarily. There were degenerative changes in the neurons in the area of compression.

The adrenal cortex was very atrophic. Usually, after a patient has received ACTH, we see evidence of proliferation in the zona glomerulosa. There was none in this patient. There was no change to suggest that this particular adrenal cortex had been stimulated recently by ACTH. I cannot tell from the section whether there was a minimal response to ACTH stimulation at autopsy.

The kidney was perfectly normal. I mention that fact because at one time it was suspected that the patient had a renal lesion.

I do not have slides showing the rheumatoid arthritis, but Dr. Gillies does have an x-ray film of the knee.

Dr. Gillies: I believe that this patient's rheumatoid arthritis was not very active at the times when we saw her, but the x-ray showed evidence that in the past she had had rheumatoid arthritis with destruction of cartilage, and complete loss of joint space between the tibia and femur, and also between the patella and femur. Since the arthritis was no longer active, there was a superimposed degenerative joint disease characterized by proliferation of bone and areas of sclerosis at the joint surfaces. In summary, the x-ray represented an old rheumatoid arthritis with superimposed degenerative joint disease.

Dr. Utterback: These changes that Dr. Layton



Figure 1. Typical spur formation arising from the dorsal surfaces of the vertebrae and forming the "bars" along the ventral surface of the vertebral canal. Note the associated narrowing of the intervertebral spaces—a usual accompaniment.



Figure 2. Illustration of the ventral "bars" by myelography. The tranverse breaks in the pantopaque columns represent constant filling defects at the sites of bar formation.

showed us in the spinal cord are representative of a sort of syndrome which we have come to recognize. We have been calling it "cervical spondylosis." I know that the term is highly unsatisfactory, for it describes neither the clinical picture nor the pathologic process, but it is the one that is recognized by radiologists and neurologists as referring to this particular combination of symptoms and signs secondary to degenerative vertebral changes in the cervical area.

The four pictures that I have brought with me (Figures 1, 2, 3 and 4) demonstrate these changes rather satisfactorily. The second of them (Figure 2) was published in what I believe to have been the first paper on the subject that appeared in the neurologic literature. It was printed about three years ago. Since we became aware of the syndrome, we have collected a number of cases here and have come to feel fairly confident of the diagnosis.

What can be done for such patients? Is seems reasonable that the major cause of the spinal cord destruction is a repeated stress on the cord as the head bends in different directions. Because of the considerable narrowing of the vertebral canal, the cord is stretched—I suppose—over the "bars" as the head and neck are bent in various positions. It seems reasonable to suppose that if the neck could be held in one position so that no bending occurred, the symptoms might be relieved. Thus, the usual non-surgical treatment is to put the neck into some sort of collar. Eventually, then, the interspaces may become fused, and it is no longer possible for the neck to bend at those levels any further. A number of attempts have been made to handle these problems surgically, and I've asked Dr. Perret to comment on them.

Dr. G. E. Perret, Surgery: The changes that Dr. Utterback has shown us are very common. Scarcely a week passes without our seeing similar arthritic changes in x-ray pictures of the cervical spine. Fortunately, the majority of the patients have very few signs and symptoms. Sometimes they have a little neck pain, shoulder pain or a little numbness in the hand, and most of them are treated conservatively. When their symptoms and signs become incapacitating, the patients are sometimes referred to us for evaluation and possible surgical treatment.

There are three surgical treatments for spinal cord and/or root compression such as have been diagnosed here. The older procedure is a decompressive laminectomy of several vertebrae in the cervical region—opening the dura and sectioning the denticulate ligaments. In doing this, we hope to mobilize the cord enough so that it will not be held tensely in place. The results of decompressive laminectomy are hard to evaluate, but I don't believe that they are very good.

The second operative procedure that is available consists of a decompression of the nerve roots themselves, and it is recommended if the patient has specific signs of nerve-root irritation. The operation involves the removal of the bony roof of the intervertebral foramina and intervertebral canals through which the spinal nerves leave the spinal canal. At the same time, the condition of the intervertebral discs can be assessed. We have had some fairly good results with this decompressive method in patients who had involvement of one or two nerve roots, but this operation will not help someone who has long-tract signs like this patient's.

The third procedure is the most recent and probably the most promising. It consists of a fusion of the cervical bodies performed through an anterior approach. The operation was first performed and reported by Dereymaker, a Belgian neurosurgeon, and together with all of his Belgian colleagues, he has reported good results in a large series of cases. Through the fusion of the involved cervical bodies, a portion of the cervical spine is immobilized, and it is believed that in this fashion the segmental blood circulation to the spinal cord (which penetrates into the spinal canal at the various levels) becomes stabilized and improves. We have done six such operations here, and the patients have not been made worse. Most of them have been improved, and four of them have been able to go

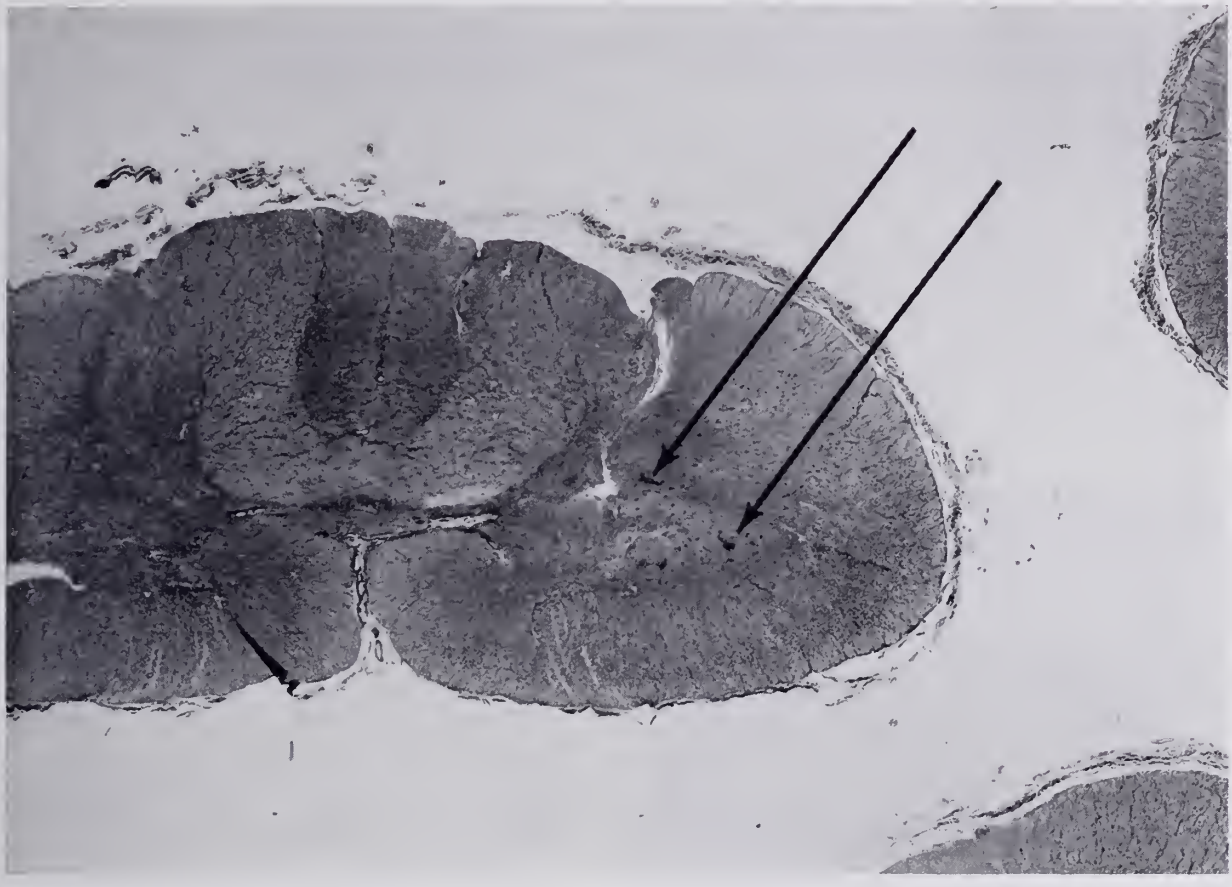


Figure 3. Cross section of the cervical spinal cord at the level of maximum compression by a "bar." Note the dorso-ventral flattening of the cord and the small hemorrhages in the anterior columns of gray matter. In this area, the motor neurons have undergone marked degeneration.

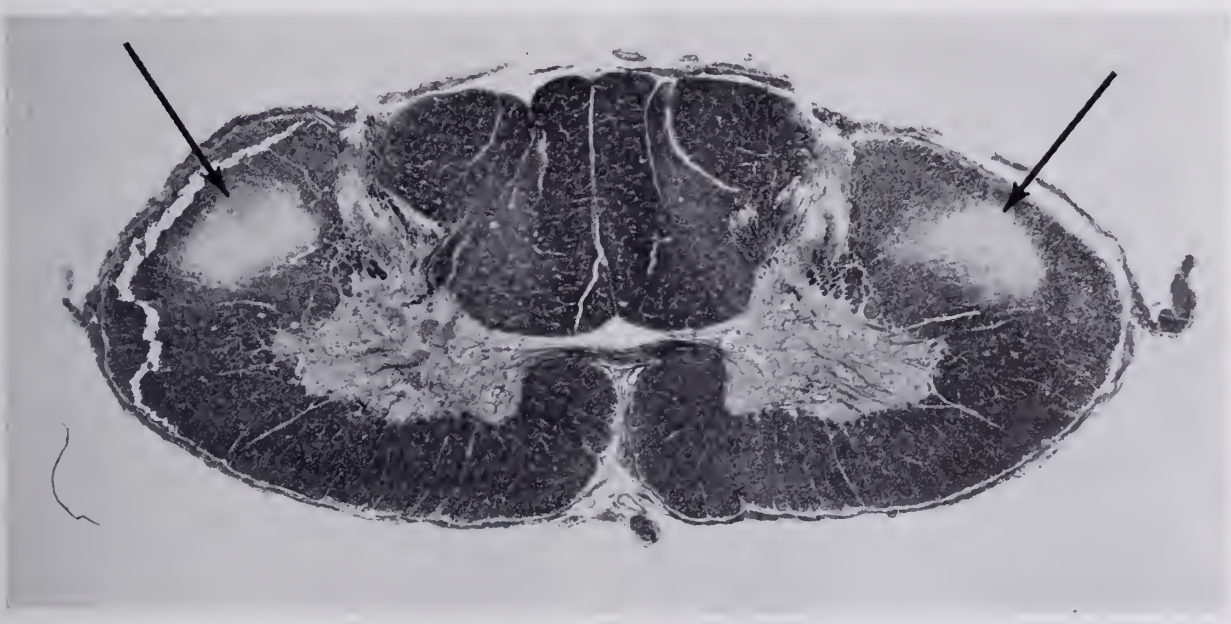


Figure 4. A myelin preparation (Weigert-Pal) of spinal cord below the compressed area. Note the selective, symmetrical demyelination of the descending cortico-spinal tracts.

back to work. One of them—the most recent—is a man who does heavy manual labor. He had been incapacitated for several years, but he is now back at work.

Dr. Seebohm: Are these the spurs that we have been telling patients are a consequence of aging—the ones that we've been saying never cause trouble?

Dr. Utterback: I think so. And they don't cause trouble, as a rule, in other parts of the vertebral column. In the thoracic and lumbar areas, where there is plenty of room, such bars probably don't cause many symptoms. I think Dr. Gillies will agree that just a few years ago we felt that these changes had little significance even in the cervical area. But we've changed our minds about that.

Dr. Wm. Hamilton, Anesthesiology: This lady came into the hospital several times because she had trouble in breathing, but to the best of my recollection the protocol says nothing of any evaluation that was made of the adequacy of her respiration. I believe that no treatment was instituted to improve the actual mechanics of her breathing, though it appears that faulty respiratory mechanics were the actual cause of her death.

Dr. Utterback: As I recall the chart, there was no real effort made to evaluate her tidal volume and related pulmonary functions. I believe it was generally accepted that her pulmonary trouble resulted from asthma, and that nothing could be done from that standpoint. Whether my impression is justified or not, I don't know.

Dr. Seebohm: I think the chart indicated that between attacks of asthma the patient was breathing reasonably well, although no precise measurements were made of her pulmonary function during those periods. There should have been enough time to get the effects of steroids, and that is the reason why I was wondering whether the continued cortisone treatment had made the adrenals refractory to the ACTH. Thus, we really lost time by giving her ACTH the first four days. I am not sure the pathologic findings answer that question for the reason that Dr. Layton gave, namely that the atrophy of the adrenal cortex could have then occurred from the prednisone that was given right before she died.

Dr. Layton: Usually, we can find evidence of the ACTH effect, even in patients who have had prednisone, cortisone or a related corticosteroid over a long period of time and often following rather large doses. This case is an exception in this regard, for there was no evidence of ACTH stimulation.

Dr. Hamilton: If you were to see this lady again, or if you were to attend a similar patient, would you feel that some attempt to augment her ability to breathe might be justified in order to give more time for therapy to become effective?

Dr. Seebohm: In what way would you have had us assist her breathing?

Dr. Hamilton: Well, as I have said, the chart doesn't tell us whether she was or was not suffering from respiratory insufficiency at the time of her death, but it is reasonable to assume that she was. There are means for breathing these people artificially—mechanical ventilators and so forth. They might help even in the presence of such nasty diseases as asthma.

Dr. Seebohm: Well, the slides showed bronchiolar plugging. In such a case, would you have had us use the Bennett valve with positive pressure breathing to blow down detergents, enzymes or bronchial dilators?

Dr. Hamilton: Anything that would add to her own strength would help. I don't know whether her strength was compromised by the lesion or not, but it is a possibility. It is not too far from at least part of the origin of the nerves of the diaphragm. I think that with a mechanical ventilator we could have increased her ability to breathe, whether drugs were also dispersed into the bronchial tree or not.

Dr. J. A. Gius, Surgery: Would helium and oxygen have been useful?

Dr. Seebohm: I'll let Dr. Hamilton answer that. Would helium and oxygen be any easier to breathe under these circumstances?

Dr. Hamilton: I think so. It is quite a job to give the mixture in effective concentrations, but it is easier to move.

Dr. Gius: Do we have it here?

Dr. Hamilton: No. I think that one would have to say that clinically this has not been proven effective, and I would have to admit that my opinions are based on reading. I have never actually used it, expect for a couple of cases down on Pediatrics. The gas leaks out of any kind of container through which you may try to give it to a patient. In order to be successful, one must have an effective concentration. Dr. Cullen has had more experience with it than I.

Dr. Stuart C. Cullen, Anesthesiology: Theoretically, it is all right, but practically, it is almost impossible, for the patient in severe distress has to have a tight-fitting mask placed on his face—a disturbing process in itself, and one that interferes with intake. Then, one has to maintain this tight fit for hours—literally—in order to get effective concentration. Theoretically, it is all right, but practically, it doesn't work out.

Dr. Utterback: Such patients are nearly always producing a great deal of sputum, are they not?

Dr. Seebohm: Since we are talking about the practical aspects of the treatment of asthma, I think there is one point I should like to make. Unless these people cough the plugs out, or at least remain able to cough, one is greatly handicapped in managing them. Artificial respiration at this stage doesn't help unless the cough reflex returns, and it rarely does.

Dr. Hamilton: Part of the reason why these peo-

ple stop coughing is that they become depressed as a result of a gradual asphyxia. I think that if some way could be found for improving their ventilation, we might wake them up or increase their alertness, and thus "undepress" them.

SUMMARY OF NECROPSY FINDINGS

The lungs disclosed evidence of bronchial asthma, with tenacious mucopurulent secretions in the bronchial tree. Mild bronchopneumonia with areas of organization was present in the left lung, and rather acute tracheitis was noted also. No bacterium was cultivated from the secretions, but Candida albicans was identified.

Osteoarthritis was present, and was especially severe in the cervical spine. In the mid-cervical region, bony overgrowth had produced extensive narrowing of the spinal canal, with resultant compression of the spinal cord. Above the level of compression, there was symmetrical demyelinization of the fasciculus cuneatus, whereas below the level of compression, the demyelinization involved corticospinal tracts primarily. Fatty degeneration was observed in anterior-horn ganglion cells in the region of compression.

Rheumatoid arthritis was most noticeable in the knees.

A moderate degree of adrenal atrophy reflected the effects of corticosteroid therapy.

Death was associated with acute tracheobronchitis complicating bronchial asthma.

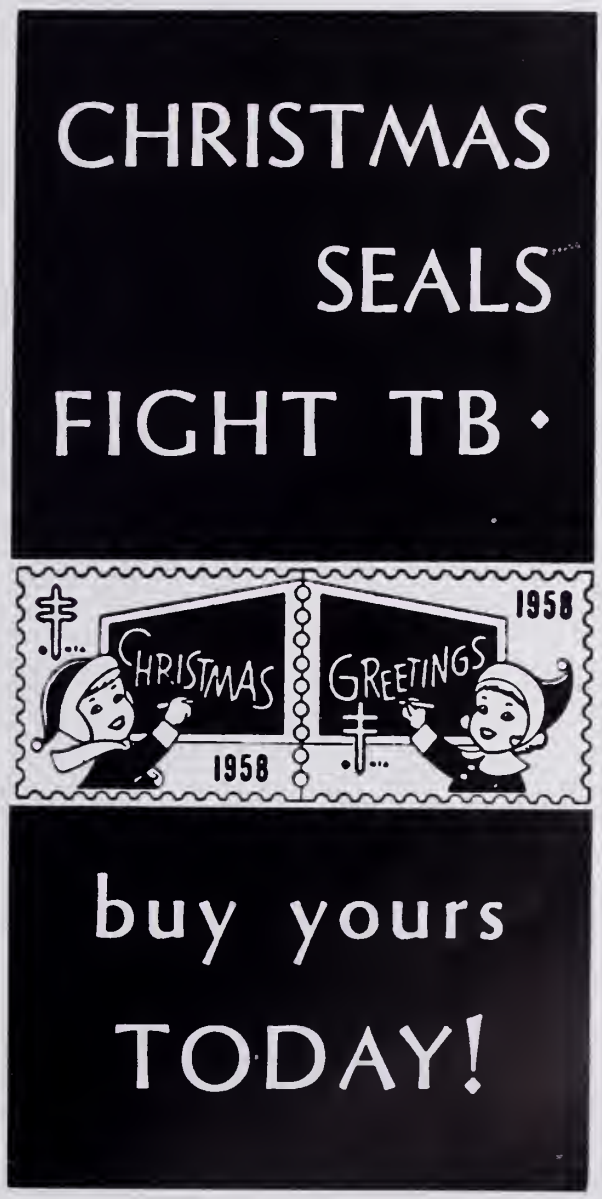
NECROPSY DIAGNOSES

Acute tracheobronchitis, severe
Bronchial asthma
Bronchopneumonia, patchy, left lung
Pulmonary emphysema, generalized, severe
Osteoarthritis of spine with narrowing of spinal canal and compression of spinal cord in the mid-cervical region
Rheumatoid arthritis
Degenerative changes in spinal cord: (a) demyelinization of fasciculus cuneatus; (b) demyelinization of corticospinal tracts; (c) fatty degeneration of ganglion cells in anterior horns
Atrophy, moderate, adrenal glands
Generalized arteriosclerosis, with arterial hypertension and left ventricular hypertrophy
Subendocardial hemorrhage, interventricular septum of heart
Peutic ulcer, healed, prepyloric region of stomach
Gastric ulcer, acute, multiple, agonal
Diverticulosis, sigmoid colon.

HEARING CONSERVATION BROCHURE

A colorful 8-page brochure titled "A Public School Hearing Conservation Program" is to reach all Iowa doctors during the second week in December. It describes the hearing conservation work that is being done through the Division of Special Education of the State Department of Public Instruction, and it was prepared under the direction of a committee containing representatives of the S.U.I. Department of Speech Pathology and Audiology, the Division of Maternal and Child Health of the State Department of Health, the American Academy of Ophthalmology and Otolaryngology, the IAGP, and the Department of Otolaryngology and the Institute of Agricultural Medicine of the S.U.I. College of Medicine.

The materials for the booklet were prepared by Miss Doris Wood, formerly a state hearing consultant and now a psychologist with the Polk County Public Schools.




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CHLOROTHIAZIDE

Chlorothiazide was introduced to the general medical profession on 1 January, 1958. It had been available to clinical investigators during the previous year. In this span it won wide acceptance as an oral diuretic and anti-hypertensive agent. Because of an intensive advertising campaign by its manufacturer and great interest on the part of physicians, it seems likely that the general medical profession has gained a better understanding of this drug in a shorter time than of any previously produced. Despite the accumulation and wide dissemination of this knowledge, many important questions concerning the mode of action and the clinical use of this drug remain. A review of these problems illustrates the difficulty of evaluating a new drug in a short time.

We know that chlorothiazide enhances the excretion of sodium, chloride and potassium on acute administration. Since it has a weak carbonic anhydrase inhibiting effect, there is a slight initial increase in bicarbonate excretion. The precise mechanism of its diuretic action is not known. Though there is no definite knowledge (shades of the mercurial diuretics!) whether chloride or sodium is primarily rejected in the nephron, most evidence favors the initial rejection of sodium. An even greater controversy rages over how chlorothiazide produces its anti-hypertensive effect. It is known that the drug decreases cardiac output, plasma volume and glomerular filtration rate in short-term experiments, and limited data would suggest similar results after chronic therapy. Whether it is these hemodynamic changes or whether it is electrolyte depletion *per se* that causes the anti-hypertensive effect is the object of considerable study. Some investigators have suggested that, when the drug is used alone, its anti-hypertensive effect is caused not by electrolyte or water depletion but by a direct effect on some other mechanism which maintains hypertension. Why ganglionic blocking drugs are so much more effective when used with chlorothiazide has not been settled. It is possible that the drug decreases the excretion of ganglionic blocking agents, renders them more effective at the ganglion synapse, or provides them with vascular beds which are less reactive to ordinary stimuli. Answers to these questions will enable us to use the drug more effectively and may give additional information about the role of electrolyte metabolism in the maintenance of hypertension.

An important practical matter is whether chlorothiazide is effective for indefinite periods. We know that its effectiveness is maintained in some patients for as long as two years, but no long-term studies of large groups of patients have been reported. It is of particular interest to discover whether the initial electrolyte depletion is a problem in long-term use. Likewise, it is important to learn whether the usually transient increases in blood urea nitrogen and serum uric acid cause damage. In this regard, periodic measurements of the miscible pool of uric acid after the institution of therapy are urgently needed. Whether the drug causes the loss of water-soluble vitamins, trace minerals or other precious materials when used chronically cannot be finally answered with the evidence we have to date.

Until these and other questions are answered, the physician who prescribes chlorothiazide should watch his patients closely for untoward effects. Since other similar compounds are soon to be introduced, it is especially important that he understand the mechanism and the shortcomings of this new type of powerful diuretic.

CIVIL AIR SURGEON AT FEDERAL LEVEL

Mr. E. R. Quesada, administrator of the new Federal Aviation Agency, has proposed the establishment of the post of Civil Surgeon within his organization. This is good news, for it would assure status for civil aviation medicine considerably higher than at any previous time under the Civil Aeronautics Administration. The AMA has advocated the establishment of such a position as a first step toward the securing of an adequate number of qualified medical examiners for airmen and other personnel in the interests of passenger safety.

As director of FAA medical activities, the Civil Surgeon would establish and maintain working relations with public and private agencies concerned with aviation medicine. He would (1) establish minimum standards of mental and physical fitness for flight personnel and air-traffic controllers; (2) provide medical exams for those people; (3) provide inspection and appraisal of examiner facilities so as to insure proper assessment of physical fitness; (4) promote training activities for medical examiners; and (5) encourage research in aviation medicine.

Applicants for the post will need to have certification by the American Board of Preventive Medicine in aviation medicine, or be qualified in a related specialty with suitable experience in aeromedicine.

ARMY WIND CHILL TABLE

Apropos of Dr. Ralph Dorner's review of a history of cold injury, ground type, during World War II, in this month's "JOURNAL Bookshelf," we are publishing the accompanying Wind Chill Table, which the U. S. Army is to supply to its commanders in an effort to reduce further the already low incidence of cold injury to troops this winter. It was developed at the Army Medical Research Laboratory, Fort Knox, Kentucky, and issued on November 3.

The findings contained in the Wind Chill Table are startling. Everyone knows it feels colder when the wind blows, but not how much colder it actually is. The table shows that if the temperature is 35°F. and the wind velocity is 20 m.p.h., the effect upon exposed flesh is the same as that of -38°F. with no wind.

Wind chill, one of the most important factors in the production of cold injury, can be prevented, and in the future when a unit commander has a forecast of the temperature and wind speed, the Wind Chill Table will tell him the approximate temperature equivalent against which he will need to protect his men.

First, the commander will obtain the temperature and wind velocity forecast data. Then, in the numbers at the top of the table, he will find the number most nearly corresponding to the wind speed that has been forecast. Next, he will read down the column below that number until he finds the figure most nearly corresponding to the predicted actual temperature. Finally, when he has found that second number, he will follow the line in which it appears until he reaches the final right-hand column. Then the number under his finger will be the equivalent temperature reading.

In case it seems that the Army, as usual, has been just as confusing as possible, perhaps another exercise is in order. Let us suppose that the predicted wind velocity is 5 m.p.h. and the predicted temperature is 60°F. An inexperienced leader might not think that his troops should be ordered to take their coats with them as they started out on patrol duty, but if he were to look at his Wind Chill Table, he would find the wind velocity 5 in the top row, follow its column down to 60, the predicted temperature, move his finger to the right to the final figure, and find that he must protect his men against the equivalent of 23°F.

BRITISH DOCTORS OPPOSE BBC INVASION

British medical men are currently at odds with the British Broadcasting Company (federally owned and operated) over a medical series called "Your Life in Their Hands." The BMA has accused the BBC of sensationalism in televising live operations.

Some of the English doctors feel that bringing the camera into the operating room is an intervention in doctor-patient relations. Others say it fosters "TV syncope" among viewers.

On the other side of the fence are a few physicians who agree with the majority of American and Canadian doctors that telecasts of operations bring comfort to many people by dramatizing the care, skill and kindness that physicians exercise. One irate individual in this group has accused the BMA of trying to preserve the mysteries of medicine and has suggested that its initials really should be regarded as standing for the Black Magic Association.

EQUIVALENT TEMPERATURES ON EXPOSED FLESH AT VARIOUS WIND VELOCITIES

Wind Velocity in Miles Per Hour

45	35	25	20	15	10	5	3	2	1	0
90°	89.5°	89°	88.5°	88°	88.75°	87.5°	87°	86°	84.5°	83°
82°	81	80.5	80	79.5	78	76	74	72.5	70	60
72°	71	69.5	68	67	65	60	57	53.5	47.5	23
63°	61	59	57	55	52	44.5	39	34.5	20	-11
51°	49	47	45	42.5	38	28	18.5	11	0	27
41°	39	36	34	30.5	25	11	0	- 9	-23.5 Below	38 Below
30°	28	25	23	18	11	- 5	-16.5	-40	-40	-40
20°	18	14	11	6	- 2	-19	-40 Below	-40	-40	-40
10°	7.5	3	0	- 6	-15	-35 Below	-40	-40	-40	-40
0°	- 2.5	- 8	-12	-18	-29 Below	-40	-40	-40	-40	-40
-11°	-14	-18	-23	-30 Below	-40	-40	-40	-40	-40	-40
-21°	-24	-30	-35	-40	-40	-40	-40	-40	-40	-40
-32°	-35	-40	-40	-40	-40	-40	-40	-40	-40	-40

ENVIRONMENTAL SEPSIS

Air-borne bacteria, often a neglected menace, can and frequently do endanger hospital patients and personnel, according to Dr. Carl W. Walter, an associate clinical professor of surgery at Harvard. He elaborated on that declaration in the first of the second-year series of Becton, Dickinson Lectures on environmental sepsis at the Seton Hall Medical Center, in Jersey City, in mid-October.

Hospital sepsis, he said, has a broader spectrum than simple postoperative wound infection. It includes pneumonitis, which is probably the biggest cause of morbidity and death; staphylococcal enteritis; pyelonephritis; furunculosis in hospital personnel and particularly in laundry workers and porters; mastitis, not only in postpartum women but also in newborn infants; and parotitis in debilitated patients, a grave clinical problem which had about disappeared a decade ago.

The chief carrier problem, Dr. Walter said, is the diseased nasopharynx. When the respiratory tract is inflamed, the Staphylococci grow as secondary invaders and multiply 3,000 to 4,000 per cent. The increased discharge from the nasopharynx soils hands, skin, handkerchiefs, clothing and the environment. This, he declared, is the carrier that should be banned from the clinical situation.

He reported that typical masks are only about 40 per cent efficient as barriers between the nasopharynx and environment. "Most professional people are too proud or too self-conscious to wear the industrial masks that are effective. Because masks are so poor, people with respiratory disease cannot be considered safe for the hospital or clinical situation."

The hospital floor, Dr. Walter said, serves as a reservoir, and when wet it becomes a multiplier. Thus, wet mops should be used only with strong detergents and germicidal solutions, for otherwise there are more bacteria on the floor after a mopping than there were before. Floors must be left dry and clean so that the usual nutrient dust found in the hospital situation does not nourish bacteria.

He pointed out that the laundry cycle should be checked especially carefully. Soiled linen should be collected and transported to the laundry in one and the same bag. Laundry chutes should not be used, for they become heavily contaminated with bacteria, and the convection currents set up in the air by the articles that fall through them insure maximum dissemination of the microorganisms.

Nurses and ward help should be asked to cooperate in eliminating trash and dressings from laundry hampers and bags. Then, the laundry can be washed just as it comes from the wards, and all classifying and sorting can be done *after* it has been damp dried. The laundry floor must be vacuumed daily, and negative-pressure ventilation is essential to remove air-borne bacteria from the sorting area, Dr. Walter added.

Turning to the air conditioner as a multiplier, he said, "Recirculation of air through a conditioner permits air-borne bacteria to impinge on the refrigerator coils. They grow in the moisture or are trapped by humidifying devices and ultimately contaminate the outgoing air. The filters must be policed, and the coils must be flushed with a detergent germicide periodically."

The following is his list of bacteriologic criteria for housekeeping procedures:

Floor count	OR	0 to 5 per square cm.
	Ward	5 to 10 per square cm.
Air count	OR	5 to 10 per cubic foot
	Ward	10 to 20 per cubic foot
Bed rail		5 to 10 per square cm.
Soap		Sterile
Bedside Water		Sterile
Bedding		2 mm. zone inhibition.

THE FREQUENTLY-SICK EMPLOYEE

Since physicians, nowadays, are employers, they should take particular interest in the results of a study that was reported in the October 25 J.A.M.A. on the possible relationship between absenteeism and job-dissatisfaction. Specifically, a doctor whose office nurse, laboratory technician or secretary "calls in sick" especially often might well consider whether he may not be delegating too little responsibility to her. Consciously or subconsciously, she may be staying away because she feels that the office can easily get along without her.

The article, prepared by the Committee on Medical Care of the Industrial Worker, of the AMA Councils on Industrial Health and Medical Service, reported a study which showed that only 35 per cent of persons with more than four absences in a six-month period felt that enough responsibility had been given to them, but that 65 per cent of those with only one absence in six months felt their capabilities were being fully utilized.

Apparently, a transient ache or pain doesn't bulk so large for the individual who knows his or her job is important and that he or she alone is being relied upon to do it.

Attend the
1959 ISMS ANNUAL MEETING
April 19-22
Des Moines

Retirement Village in Nebraska

A new kind of town is going up on the outskirts of Hastings, Nebraska—a town designed specifically for older people. Good Samaritan Village, a retirement colony being established by the Good Samaritan Society, a Lutheran Church-related organization that operates about 60 nursing and old-age homes, has been described in the October, 1958, issue of CHRONIC ILLNESS NEWSLETTER, a publication of the AMA Council on Medical Service.

The buildings—one-story concrete block structures occupying about 50 acres and providing room for 450 apartments—originally were constructed by the federal government for workers at the Hastings Naval Ammunition Depot. After World War II, the Society bought some, and has an option to buy the rest, enough buildings to provide 400 more apartments. The Village is operated on a non-profit, self-sustaining basis, meeting costs through revenue from the rental of apartments and from providing care to patients in the Rest Home.

The unique feature of the project is that, unlike the conventional old people's home, it permits elderly couples a maximum of independence and privacy. (1) One- to three-bedroom apartments are available for couples or individuals who are self-sustaining and who require merely the companionship of others in their age group. (2) Similar apartments are provided for those who can maintain their own households only with assistance from a "house visitor" who drops in each day to help with household duties and meal planning. (3) The same living arrangements are provided to residents who must or who wish to take one or more of their meals in a central dining room. (4) At the centrally located Rest Home, personal care is provided under medical supervision for persons who can no longer maintain their own apartments or who need help with feeding, dressing or walking. (5) An infirmary section of the Rest Home, also under medical supervision, provides skilled nursing care for those who need it.

The first residents were admitted in the spring of 1958, and already the Village has a waiting list both for the apartments and for the personal and skilled-nursing-care facilities.

A number of volunteer groups in Hastings have become interested in the project and have offered their services on projects such as recreational activities, crafts, church services and the like. An advisory committee representing various community, professional and business groups has been formed to work with the administrator.

The basic premise on which the Village is being developed is that retiring couples must be provided "security, Christian care and companionship" ranging from completely independent living arrangements, to self-care with periodic supervision, to skilled nursing care under medical direction.

Most of the residents will maintain their own apartments. There are from four to six of them in each of the buildings, which are insulated and fire-resistant throughout. Each apartment is equipped with an individual automatic radiant gas heater, giving the occupants full control of room temperature, and with an automatic hot water heater. All apartments consist of a 10 x 10 kitchen, a 10 x 15 living room, a bath room, and from one to three bedrooms each measuring 10 x 12, with storage and closet space. Each apartment is completely cleaned and redecorated according to the resident's individual tastes before he moves in. Occupants supply their own furnishings. Rents range from $25 to $35 per month, plus utilities. Later, if the residents require help with housework, it is provided without extra cost.

Residents in the Rest Home pay different rates, depending on the services that they require. For complete care (meals, laundry, room service) for the person who is up and about, the cost is $85-$95 per month. For a person in a wheel chair or walker, it is $100-$125, and for those patients needing bed care in the Infirmary, it is $125-$150 per month.

The infirmary is under the supervision of a medical director, a local physician interested in geriatrics. He handles all emergencies when the patients' private physician is unavailable, but in his periodic visits he sees only those specifically under his care.

At the present time, any necessary laboratory tests are done through arrangements made by the physician, since the home has no laboratory of its own. This, as well as other diagnostic, and therapeutic apparatus such as oxygen, BMR, EKG, x-ray, autoclaving and sterilization facilities, etc. are all planned for the new infirmary. Equipment for physical and occupational therapy is also planned, and provision is to be made for dental supervision and services.

At present only a handful of the 450 apartments have been rented. The 11-bed infirmary is full and has a waiting list, but it is in the process of being expanded to 50-bed capacity. In the more distant future, the development will become a village in a real sense. A shopping center will be built, a chapel will be erected, and a small lake nearby will be made the center of a new recreational park. Eventually, it is planned that the Good Samaritan Village will become a true retirement center, offering a complete and diversified spectrum of services to meet the medical rehabilitative, social and housing needs of its "townspeople."

President's Page

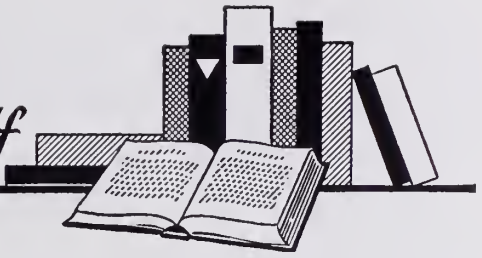
As 1958 draws to a close, it is appropriate that we dwell upon the significance of the approaching Christmastide, when we shall again celebrate the advent of the Blessed Babe of Bethlehem.

Many difficulties and tribulations have befallen us in the past eleven months, but as the Holy Season draws nigh, let us pause to reflect upon the greeting of the Herald Angels: "Peace on Earth to Men of Good Will!"

Then, we may say with sincerity, "Merry Christmas, Happy New Year, and God Bless You, Each and Every One!"

President

THE JOURNAL *Book Shelf*



BOOKS RECEIVED

YEAR BOOK OF PEDIATRICS, 1958-1959 YEAR BOOK SERIES, ed. by *Sydney S. Gellis*, M.D. (Chicago, The Year Book Publishers, Inc., 1958. $7.50).

ANATOMY FOR SURGEONS: VOLUME III, THE BACK AND THE LIMBS, by *W. Henry Hollinshead*, Ph.D. (New York City, Hoeber-Harper Co., 1958. $23.50).

DIFFICULT DIAGNOSIS, A GUIDE TO THE INTERPRETATION OF OBSCURE ILLNESS, by *H. J. Roberts*, M.D. (Philadelphia, W. B. Saunders Co., 1958. $19.00).

THE DOCTOR BUSINESS, by *Richard Carter*. (Garden City, N. Y., Doubleday & Co., 1958. $4.00).

EPILEPSY, by *Manfred Sakel*, M.D. (New York City, The Philosophical Library, Inc., 1958. $5.00).

BREAST CANCER. THE SECOND BIENNIAL LOUISIANA CANCER CONFERENCE, ed. by *Albert Segaloff*, M.D. (St. Louis, C. V. Mosby Company, 1958. $5.00).

SYMPOSIUM ON SPECIAL DIAGNOSTIC AIDS, ed. by C. *Paul Hodgkinson*, M.D., and SYMPOSIUM ON ABNORMAL UTERINE BLEEDING, ed. by *John I. Brewer*, M.D. VOL. I. NO. 3 of CLINICAL OBSTETRICS AND GYNECOLOGY. (New York City, Hoeber-Harper Co., 1958. $18 per year—for four consecutive volumes).

EMERGENCY WAR SURGERY, NATO HANDBOOK, by the United States Department of Defense. (Washington, D.C., Government Printing Office, 1958. $2.25).

BOOK REVIEWS

COLD INJURY, GROUND TYPE, IN WORLD WAR II, by *Col. Tom F. Whayne*, MC, and *Michael E. DeBakey*, M.D. (Washington, D.C., U. S. Government Printing Office, 1958. $6.25).

This is undoubtedly the most comprehensive volume on the ground type of cold injury that has ever been published. It contains a complete historical account of the condition in all recorded wars, as well as complete chapters on the World War II experiences of the U. S. Army in Alaska, Italy, the European Theatre of Operations, and the Pacific, where the so-called tropical type was briefly encountered. There are chapters on every phase of cold injuries, from pathogenesis to prevention and control. The chapters on epidemiology and on the clinical aspects of the condition are particularly detailed. The book is thoroughly illustrated, and many of the illustrations are in color.

"Cold, wet, or cold and wet in combination are the basic causes of cold injury. Predisposing factors were also of great importance in World War II. These factors included (1) the intensity of combat; (2) the inadequacy of clothing and footgear; (3) the pressure of events which required that new troops be taught so much in a limited period of time that they were not to be taught the essential facts of cold injury; and (4) as General Bradley himself acknowledged, the taking of a calculated risk for which a price has to be paid, when in the summer and early fall of 1944, it was decided that gasoline and ammunition should take precedence in transportation over supplies of winter clothing.

"It is particularly imperative that the principles of prevention of cold injury become a part of peacetime military training and planning. This volume has three purposes: (1) to record the history of cold injury, ground type, in World War II, (2) to summarize what has been learned of the nature of this form of trauma, including its pathologic physiology, its epidemiology, its military cost and its management, including the rehabilitations of casualties from this cause, (3) to formulate, from the materials of the past history of cold injury, the principles of a sound program for its prevention and control in future military operations in cold regions and in temperate regions during cold weather."

It is hoped that if this volume is carefully studied and if the lessons it teaches are properly learned, there should be no similar experience in future wars.

—*Ralph A. Dorner*, M.D.

FIBROMYOMAS OF THE UTERUS, ed. by *Robert A. Kinbrough*, M.D., and TOXEMIAS OF PREGNANCY, ed. by *Louis M. Hellman*, M.D., VOL. I, NO. 2 OF CLINICAL OBSTETRICS & GYNECOLOGY, A QUARTERLY BOOK SERIES. (New York, Hoeber-Harper Co., 1958. $18 per year, for four consecutive volumes).

This volume is one of a series, each of which is to contain two discussions, one of them in the field of gynecology and the other in the field of obstetrics. The subjects are presented by prominent men particularly well qualified to discuss their particular topics. If future publications measure up to this one, the success of the project is assured.

Both of the presentations in this book are well done. I was particularly pleased to note that the essentials were presented in a clear, short, yet rather complete manner. Boring detail had been eliminated. This volume is of considerable value to the specialist as well as to the general practitioner.

—*H. Kirby Shiffler*, M.D.

YEARBOOK OF MEDICINE, 1958-1959 YEAR BOOK SERIES, ed. by *Paul B. Beeson*, M.D., *Carl Muschenheim*, M.D., *William B. Castle*, M.D., *Tinsley R. Harrison*, M.D., *Franz J. Ingelfinger*, M.D., and *Philip K. Bondy*, M.D. (Chicago, The Year Book Publishers, Inc., 1958. $7.50).

The new YEAR BOOK OF MEDICINE is in the excellent traditional style. The editors, enumerated above, are noted authorities, and each of them has abstracted articles in the subspecialty in which he has been working. He has picked out the papers that he considers most valuable, mentioning where the original is to be found in its complete form, and often has added a personal comment of his own. The articles are well sorted as to field of reference.

The efforts of the Year Book Publishers, Inc. are again to be commended. All too often, we busy doctors

have too little time to read entire journals. All too often, if we do, we find many articles of doubtful merit. All too often, at the end of a busy day, brain fatigue prevents our concentrating on a long article. The YEAR BOOK OF MEDICINE continues to be valuable to doctors such as we, who may have no more than 10 or 15 minutes of available time for reading and who may be able to concentrate for only that length of time. It is a book that one can pick up when he has only a few minutes to spare.

Also of great value and interest is the comment that appears at the end of the abstract. Reading it, one often nods his head and chuckles. Let's hope the Year Book Publishers stay in business!—*Daniel A. Glomset,* M.D.

AIDS TO MEDICAL DIAGNOSIS, EIGHTH EDITION, by *G. E. Frederick Sutton,* M.D. (Baltimore, The Williams & Wilkins Company, 1958. $3.50).

Any pocket-sized manual such as this—one that has been reprinted or re-edited eight times in 42 years—must possess merit.

Dr. Sutton is a well known Briton who has attempted to abstract some of his "feelings" about disease in a small volume, and he has enlisted the aid of other specialists when needed. Sections are headed "Disorders of the Abdomen," "Diseases of the Blood" and "Diseases of the Endocrine Organs." Frills have been dispensed with, and the material in these sections have been boiled down to simple essentials.

It would seem that a book such as this would be admirably suited for an interne's pocket or for a nurses' reference table on the ward. Medical students might also use it as a starting point for further study, since it contains the fundamentals that they should have mastered before proceeding further. But the volume will be of little aid to the more mature physician who wishes to look up some question in detail.

To recapitulate, this is a book for one who wishes to get a few fundamentals on a disease or a pain in a hurry.—*Daniel A. Glomset,* M.D.

RECTICULAR FORMATION OF THE BRAIN, HENRY FORD HOSPITAL INTERNATIONAL SYMPOSIUM, ed. by *Herbert H. Jasper,* M.D., *Lorne D. Proctor,* M.D., *Robert S. Knighton,* M.D., *William C. Noshay,* M.D., and *Russell T. Costello,* M.D. (Boston, Little, Brown and Company, 1958. $16.00).

This volume represents many man-hours of productive research on a problem of current neurologic interest. In 1870, Fritsch and Hitzig demonstrated electrical excitability of the cerebral cortex, and much effort in the field of neurophysiology since that time has been devoted to investigations of cerebral cortical function. In the past dozen years, Magoun and his coworkers have focused neurophysiologic thinking on the brain stem reticular formation, and the present symposium presents the up-to-date results of that experimentation.

The reticular formation, or archetypal neuropil of the classical neuroanatomists, includes in its system organization the core of the brain stem, the non-specific thalamic nuclei, and related gray matter in the diencephalon, septal region, and amygdala. Since it has been shown that electrical stimulation of the brain stem reticular formation produces EEG arousal, the reticular formation has been implicated in wakefulness, alertness and "consciousness."

Certainly in vertebrates without a neo-cortex, there is integrated behavior and some degree of wakefulness and "consciousness." The cerebral cortex is perhaps "suburban" to the central core of reticular formation, but it is difficult for me to accept the implied thesis that the cerebral cortex is accordingly "subordinate" to the reticular formation, even though it may be significantly influenced by it.

The book itself is handsomely published, consisting of 766 pages, containing many illustrations, and made up of contributions from no fewer than 72 distinguished authorities. There are 37 formal presentations in neuroanatomy, neurophysiology and psychologic behavior studies related to the reticular formation of the brain.

This symposium volume brings to the profession a permanent record of some exciting studies in the "new" neurology, but if one is to find it more than casually interesting, one must have a special concern for things neurologic. For physicians with a really profound interest in current neurophysiology, the information contained in it is a rewarding treasure. —*John T. Bakody,* M.D.

IOWA TOMAHAWK WOUND CASE, 1958

The case of a modern man who suffered a tomahawk injury has been reported in the November AMA ARCHIVES OF INTERNAL MEDICINE by an Iowa City physician, Dr. Thomas B. Summers.*

The patient, a 57-year-old trailer-camp operator was struck on the cheek with a tomahawk as he attempted to stop a tenant from beating his wife. About two weeks afterward, he began to have pain in both temples, and afterward he experienced increasing waves of pain in the head. At times his fingers, tongue and lips became numb, and finally an inability to speak that lasted 30 minutes drove him to see a doctor. During examination, he experienced numbness and weakness of the left hand and forearm.

Examination indicated pressure on the brain from a subdural hematoma, and trephination was performed to relieve it. Seven months later, after two drainage procedures and a further brain operation, he was symptom-free and working.

Dr. Summers related that trephination was performed by the Incas Indians in Peru and Bolivia centuries ago in treating wounds from a macana, a wooden weapon edged with sharp flint, and also to allow "evil spirits to escape from the head." American Indians also performed the operation, apparently to treat tomahawk wounds, but the Incas seem to have had considerable success with it, apparently because they had acquired a knowledge of liquids and powders that acted as antiseptics.

Sometime in the distant future, Dr. Summers speculates, an archeologist may come across this man's skull showing signs of a tomahawk wound and trephination, and wonder about the anachronism of such an injury in the twentieth century.

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* Summers, T. B.: Tomahawk head injury. AMA ARCHIVES OF INTERNAL MEDICINE, **102**:820-822, (Nov.) 1958.

Iowa Academy of General Practice

THE PRECEPTORSHIP PROGRAM

The senior medical students at S.U.I. are now embarked upon their final year of formal undergraduate study. Sometime between the end of their junior year and the start of their senior one, each of them served a preceptorship with an Iowa general practitioner.

The following article, by Dr. C. A. Nicoll, of Panora, past-president of IAGP,* contains both a preceptor's and a preceptee's opinion of this program.

WE MUST GIVE THE STUDENT A HELPING HAND

"In 1953, the State University College of Medicine, in conjunction with the Iowa State Medical Society, originated the Preceptorship Training Program. It has been remarkably successful and is enthusiastically acclaimed by the students and faculty alike.

"At its inception, the program was not too well understood by either of the parties most concerned. But as time passed and experience was gained, many of the problems were worked out, and now this type of training is recognized as being a very worthwhile part of undergraduate study.

"The student, at the end of his junior year in medicine, is required to spend one month with a qualified general practitioner. This is to give him a well-rounded picture of the practice of medicine. This kind of knowledge can only be gained by actually living and working with a doctor who does general practice. Hence, the GP has been chosen as the preceptor.

"For the year 1958 about 135 doctors signified their willingness to serve as preceptors. Many of them have had a student several times and are willing to take more boys because they believe in this program. Since the success of this program depends on the GP's, it is up to us, the members of the Iowa Academy of General Practice and other well-trained GPs, to see that it succeeds.

"The success of this program depends on having enough preceptors to handle the students adequately year after year without putting a burden on just a few. The Iowa Academy alone has over 500 well-qualified doctors who should be serving as preceptors turn and turn about, and there must be many more excellent physicians who should be having preceptees. It is a worthwhile and very rewarding experience. These boys are sharp and are eager to have intimate contact with practicing physicians. They will learn a lot from you, but you in turn will also learn a lot from them. We who have had several know whereof we speak.

"Early this fall, you will be asked to volunteer as a preceptor for next year. Please think carefully about this opportunity to serve the profession that has been so good to you, and then sign up for the year 1959."

Since this program is relatively new, it is worthwhile to hear the views of a 1958 preceptee. He was asked to comment on it, giving his opinions, criticisms and suggestions. He was assured that he would not be identified.

"I received your letter requesting some of my thoughts concerning my recent preceptorship, and have included them in this letter. I don't think my own opinions vary radically from those of most of my classmates with whom I've talked, although I feel my preceptorship was exceptionally worthwhile and have so indicated. Following are my answers to the four questions which you posed, in more or less the order you gave them.

"To me, my preceptorship was most valuable in helping bridge the gap between academic work and the actual practice of medicine. Discontinuance of the program would rob future SUI graduates of a chance for practical application as well as the more important benefit of getting a look at the life which many of them will choose. Without a preceptorship, a junior medical student would have only the image of his own family doctor plus the distorted concept that he has gained of such men from the hurried phone call or the scribbled note ("LMD") which accompanies patients referred to Iowa City on which to judge the case for general practice when deciding the future course of his professional life.

"I went to a small town by choice, specifically to see how I would fit the role of a small-town practitioner in which I have always cast myself. I expected cordiality and small-town hospitality, but

* Reprinted from the July-August, 1958, issue of HAWKEYE GP NEWS.

even with the preview that a former preceptee had given me, I was unprepared for the immediate and complete acceptance into the entire family which I received. I was very much pleased to be invited to monitor all professional calls, attend town council, church board, Legion and AAGP committee meetings. Even patients with very personal problems seemed to accept me, and indeed I was referred to and treated as 'doctor' from the first day. I did not see the alleged dullness always attributed to small towns—the dullness which I expected to have descend upon me sometime during the month.

"The variety of cases and problems which we saw was a welcome surprise, but the biggest surprise was the difference between the case types seen most often there and those seen in Iowa City. Needless to say, disseminated lupus erythematosus and multiple myeloma cases were few and far between. However, the times I enjoyed most were the talks in the evening or en route to distant house calls—everything from bookkeeping to the Audio-Digest. There are 1,001 things not strictly medical which the neophyte wonders about.

"Criticism of the preceptorship program can be only a individual matter. I've heard criticisms of everything from too much night work to too much pill boxing, and even of occasional personality conflicts. Twice, my preceptor took time out to ask me specifically if I were getting enough to do and enough to eat—a certain means of nipping any budding points of friction. My month was a success because my preceptor and his family and I got along well together. To insure that this will happen more often, I think a better job of matching is feasible—that is, putting each student with the type of preceptor whom he prefers. Perhaps he wants to be assigned to an older doctor, to one who is engaged in group practice, to one who wants a preceptee for all summer, to one of a particular faith, to one whose wife wants the company of the student's wife, or to one in a small town. Now that the supply of preceptors has finally begun to exceed the demand, a little advance planning might do away with most of the remaining areas of friction, to the benefit of all concerned."

The College of Medicine does not have a department of general practice, but the general practitioners can give the students a very good prospectus through the use of the Preceptorship Program. Personally, and I believe I speak for all practitioners, I enjoyed being a participant in this program. I look back and sincerely wish such an arrangement had been in existence at the time I was in medical school. Therefore, I hope more general practitioners than ever will consider it a privilege to have a part in the education of SUI medical students, and will volunteer to serve as preceptors in 1959.

PROTECTING CHILDREN FROM SEX PERVERTS

Nearly all sex offenders have a characteristic in common—timidity—that furnishes the most promising way to protect children from them, says an article in a recent issue of TODAY'S HEALTH.

Teaching children to avoid situations that play into the hands of sex perverts is one of the most delicate jobs that parents face, the author said, but if they remember that sex offenders are generally timid, they need do no more than instill in the youngsters that they are not to accept rides that are offered them by strangers, and that they should always have a pal with them as they go to and from school, to the store, etc.

Of course, if the child is to be relied on to follow his parents' instructions in this as in all other particulars, he must have a home in which he feels that he is safe, understood and loved, and in which he knows that the enforcement of rules is not capricious.

The point is that a pervert is unlikely to force his attentions on a child who says "No," altogether firmly, or to single out one child from a pair or group.

CHILDREN'S EYE INJURIES

Loss of vision—or even enucleation—as a result of eye injuries is especially high in young children, a California ophthalmologist has reported in the September issue of EYE, EAR, NOSE AND THROAT MONTHLY.* Of 90 children with various eye injuries who were treated at Children's Hospital, Los Angeles, he says that 19 underwent enucleation or evisceration, and vision in the affected eye was reduced to less than 20/200 in 26.

The author says there are four factors which influence outcome in such cases, (1) severity of injury, (2) age of patient, (3) length of delay between accident and hospital admission, and (4) management. A penetrating wound with complications such as infection due to delay in admission to hospital, vitreous loss, lens injury and the like, led to visual impairment and even enucleation in some patients.

During the first two years of life, he found, eye injuries are most apt to terminate in enucleation. In 50 per cent of such cases, the affected eye was enucleated, whereas in the 3-4 year age group that procedure was necessary in only 25 per cent of cases, and in only 14+ per cent of the 11-14 year age group.

Prevention of eye injuries in the youngest age group is thus of primary importance, and for the general physician the prime consideration is that of getting such a patient to an ophthalmologic surgeon quickly.

* Carbajal, U. M.: Eye injuries in children: a serious problem. EYE, EAR, NOSE AND THROAT MONTHLY, 37:584, (Sept.) 1958.

THE DOCTOR'S BUSINESS



1958 Tax Amendments

HOWARD D. BAKER

WATERLOO

The 1958 "Technical Amendments Bill" contained many changes in federal tax laws and closed a number of loopholes.

FIRST YEAR DEPRECIATIONS

Any business except a trust may elect to write off 20 per cent of the cost of *tangible personal property* in the year of its acquisition during years ending after June 30, 1958. This deduction is in addition to the ordinary first-year depreciation allowed on the remaining 80 per cent of the cost of the property. It is limited to property costing not more than $10,000 ($20,000 on a joint return) and having a useful life of six or more years.

LOSS ON SMALL BUSINESS STOCK

Ordinary, rather than *capital*, loss is now allowable on losses up to $25,000 per year ($50,000 on a joint return) where the holder of "small business" stock sells or exchanges stock at a loss or where the stock otherwise becomes worthless.

The stock must have been issued after June 30, 1958, and the total amount of the issuing company's equities must not exceed $500,000. Furthermore, the firm must have derived more than 50 per cent of its gross income for five years (or from the date of its organization if the loss has occurred within five years) from sources other than rents, royalties, dividends, interest, annuities and the sale or exchange of securities.

INSTALLMENT PAYMENT OF ESTATE TAX

Provision has been made for the installment payment of an estate tax over a 10-year period when the estate consists largely of an interest in a closely-held business. Such an interest (or interests in two or more such firms) must be at least 50 per cent of the proprietorship and either 35 per cent of the gross estate or 50 per cent of the taxable estate.

LEASEHOLD IMPROVEMENTS

When a lessee makes improvements upon leased property, the period over which he may depreciate them *will include* all renewal periods unless the lessee establishes the probability that the lease will not be renewed. This change puts the burden on the lessee to show that the lease will not be renewed, whereas heretofore the burden was on the government to prove that it was reasonable to expect the lease to be renewed.

The exception to this amendment takes effect when the useful life of the improvement is to be shorter than the lease period as computed by this method. In such a case, the shorter period may be used.

SOCIAL SECURITY AND SELF-EMPLOYMENT TAX

Effective January 1, 1959, the Social Security Tax rate for employees is increased to 5 per cent (2½ per cent from both employer and employee), and the maximum wage subject to such tax is increased from $4,200 to $4,800. An employee earning $4,800 or more will have $120 deducted from his salary or wages in 1959, as compared with $94.50 in 1958.

The self-employment tax for years beginning after December 31, 1958, has been increased from 3⅜ per cent to 3¾ per cent, and the maximum tax base has been increased from $4,200 to $4,800. Thus, a self-employed person earning $4,800 or more in 1959 will pay $180, as compared with $141.75 in 1958.

STATE DEPARTMENT OF HEALTH

Edward G. Zimmer
COMMISSIONER

A FOLLOW-UP STUDY ON BRUCELLOSIS

The Division of Preventable Diseases of the Iowa State Department of Health recently received a grant from the Study Section of the U. S. Department of Health, Education and Welfare. This grant is for the beginning period of a long-term study on the prognosis of bacteriologically-proved cases of brucellosis in Iowa.

It is well known that brucellosis in the severe acute form can involve many different body systems and tissues, and that it can cause death as a part of the acute illness. Appearing in a chronic form, from which the patient makes recovery, it is capable of causing an undetermined amount of residual damage in years subsequent to the time of infection. The study is intended to measure that damage, and it is felt that Iowa is probably the best place to make it because of the high Iowa rates for the disease since the middle 1920's and because of the large number of cases here from which the organism has been isolated and typed.

As compared with other states, Iowa has a particularly large number of bacteriologically-proved and typed cases, and the records go back to 1923. An effort will be made, starting immediately, to find as many as possible of the affected persons, and with the consent and cooperation of those individuals and their physicians, to secure interval medical histories. On those who have died, information will be obtained from death certificates, autopsy reports and other medical records. Through a study of only the bacteriologically-proved cases and only those patients who had their infections five or more years ago, it is hoped all possible late effects of brucellosis can be found. One group of investigators in Mexico argues that persons who have had brucellosis are more likely than others of the same ages to develop chronic heart disease.

The work is being carried on jointly by members of the Division of Preventable Diseases and of the State Hygienic Laboratory, both of which are parts of the State Department of Health. The final member of the team, Dr. Ian Maclean Smith, an associate professor of internal medicine, has recently been named medical consultant for the Department of Preventive Medicine.

MORBIDITY REPORT FOR MONTH OF OCTOBER

Disease	*1958 Oct.*	*1958 Sept.*	*1957 Oct.*	*Most Cases Reported From These Counties*
Diphtheria	1	0	0	Shelby
Scarlet fever	186	86	218	Allamakee, Fayette, Johnson
Typhoid fever	3	3	4	Floyd, Pottawattamie, Des Moines
Smallpox	0	0	0	
Measles	223	154	31	Linn, Polk, Scott
Whooping cough	2	13	13	Des Moines, O'Brien
Brucellosis	9	20	7	Dubuque, Howard, Marion
Chickenpox	67	5	159	Adams, Des Moines, Polk
Meningococcus meningitis	3	1	2	Scott, Warren
Mumps	177	130	145	Clay, Marion
Poliomyelitis	8	29	4	Decatur, Marshall, Dallas, Buchanan, Black Hawk, Sac
Infectious hepatitis	6	24	5	Jones, Polk, Winneshiek
Rabies in animals	20	13	10	Hamilton, Howard
Malaria	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Tuberculosis	47	40	38	For the state
Syphilis	126	73	92	For the state
Gonorrhea	103	67	33	For the state
Histoplasmosis	0	2	0	
Food intoxication	2	0	0	Johnson
Meningitis (type unspec.)	2	0	6	Clay, Linn
Diphtheria carrier	0	0	0	
Aseptic meningitis	7	14	6	Dallas, Jasper, Polk
Salmonellosis	6	0	16	Audubon, Carroll, Decatur, Polk
Tetanus	1	0	0	Plymouth
Chancroid	0	0	0	
Encephalitis (type unspec.)	3	8	0	Hamilton, Linn, Pottawattamie
H influenzal meningitis	0	0	0	
Amebiasis	38	2	4	37 delayed cases Boone Co.
Shigellosis	3	0	0	Polk, Warren
Influenza	6	1	73,019	Fayette, Polk

ESTIMATED POLIOMYELITIS INOCULATION STATUS OF CIVILIAN NONINSTITUTIONAL POPULATION OF THE UNITED STATES IN 1958 AND 1957

	SEPTEMBER 1958			AUGUST 1957		
	Population	*Number With 3 or More Inoculations*	*Number With No Inoculations*	*Population*	*Number With 3 or More Inoculations*	*Number With No Inoculations*
	NUMBER IN THOUSANDS			NUMBER IN THOUSANDS		
Under 20 years	65,508	40,323	14,549	63,326	28,452	18,071
20 to 39 years	44,112	11,537	26,575	44,005	3,336	31,059
Under 5 years	19,556	8,856	6,108	19,204	6,770	7,127
5 to 9 years	18,202	13,374	2,558	17,949	10,663	3,101
10 to 14 years	15,810	11,836	2,018	15,101	8,054	2,939
15 to 19 years	11,940	6,257	3,865	11,072	2,965	4,904
20 to 29 years	20,436	5,884	11,412	20,405	1,837	13,899
30 to 39 years	23,676	5,653	15,163	23,600	1,499	17,160
40 to 49 years	21,786	2,060	18,718	21,555	486	19,708
50 to 59 years	17,302	564	16,502		Not available	

The above estimates were derived from data collected in two Current Population Surveys by the Bureau of the Census. The sample in each survey included about 100,000 individuals in 35,000 families.

POLIOMYELITIS CASES IN IOWA—1958
(Week ending November 1, 1958)

County	*New Cases*	*Total Cases*
Appanoose		2
Audubon		2
Black Hawk		1
Bremer		1
Buchanan		2
Butler		1
Cherokee		1
Clay		3
Dallas		1
Decatur	1	1
Des Moines		3
Floyd		4
Ida		1
Linn		1
Lyon		1
Marshall	1	2
Mills		1
Muscatine		2
Page		1
Plymouth		1
Polk		10
Story		5
Sac		1
Wapello		1
Warren		1
Washington		4
Woodbury		6
		—
		60

Paralytic	18
Non-paralytic	37
Unspecified	5

Total cases this week	2
Total same week last year	0
Total cases last week	0
Total cases last year (through 11-2-57)	74

STAFF GETS FIRST-AID TRAINING

The Iowa State Department of Health has recently completed plans for first-aid courses for members of its staff. Eighty-one members have volunteered to take them. The first course began on Monday, November 10, and the last will start after Christmas.

First-aid kits are also being issued by the State Department of Health to staff members who complete the training course and whose work requires them to travel either throughout the state or in assigned areas.

HARVARD HONORS DR. ZIMMERER

At a recent meeting of the Harvard Public Health Alumni Association, in St. Louis, Dr. Edward G. Zimmerer, the Iowa Health Commissioner, was chosen to be vice-president of the organization. He received his M.A. in public health at Harvard in 1941.

Because the vice-president advances to president the following year, Dr. Zimmerer can expect to preside at the Association's annual meeting in the fall of 1960.

Woman's Auxiliary News

OUR PRESIDENT SAYS—

One night long ago, an event occurred in a little town which changed the course of the world. A Prince of Peace was sent to this earth to found a new faith of hope and brotherly love. As the holiday season approaches, let us remember the real spirit of Christmas and pray for more tolerance, understanding and love among all men in the years ahead!

Everywhere, there is the feeling of Christmas. Children are laughing, grown-ups are smiling, and stores are filled with people buying gifts. The familiar carols, as they are played or sung, fill us with joy. The candlelight church services, the smell of evergreens, the glitter of tinsel, the gay wrappings of the packages under the lighted tree, and the wonderful spirit of friendliness and good will are all parts of the American Christmas. The season is much the same today as it was yesterday. The decorations and our mode of dress may have changed, but the happiness and excitement are unchanged. Because everyone wants to make Christmas the one completely wonderful time of the year, nothing is too much trouble.

Doctors and their families are always doing for others, but as we deck our halls with holly and prepare our holiday food, let us take time to remember those less fortunate than ourselves. If we give of ourselves for others, our own holiday will be so much happier. And let's not forget the intangible gifts of consideration, inspiration, gratitude and service by which we can make the world pleasanter for those with whom we live and work. If we are frankly appreciative, the star over Bethlehem will glow with a special radiance, and our Christmas will be truly merry!

My family and I wish for you, for your family and for your friends a very merry Christmas and a joyous holiday season.

Mrs. Herbert C. Merillat

TRAFFIC SAFETY

The Second Iowa Women's Traffic Safety Conference was held on September 30 in Des Moines to continue planning a program for women's organizations to follow in this highly important field. It is being formulated in accord with recommendations of the President's Committee for Traffic Safety.

The Conference agreed to help develop public support for safety legislation in two particular areas: (1) driver education for all young people under 18, and (2) compulsory chemical testing for suspected drunken drivers.

Our school superintendents in Iowa regard driver education as a valuable course. It should be a part of all high school curricula, and satisfactory completion of the course should be a prerequisite for the licensing of a driver under 18 years of age. It is the development of proper driver attitudes that is important, and those attitudes can best be inculcated by a teacher who has the prestige of a school behind him.

The records show that accidents are less numerous where driver education is available. The modern car is a complicated machine, and we are guilty of negligence when we permit teen-agers to drive it without having completed an approved driver-education course. The benefits of courtesy and responsibility that the student learns along with essential technical skills will carry over into his other activities, thereby making him a better citizen. And it sometimes happens that adult relatives of the student acquire at second hand some of the information and habits which have been taught to the youngster.

As for the testing of drivers suspected of drunkenness, there can be no question about the advisability of the law for which the Department of Public Safety is asking. A robbery or a murder suspect cannot refuse to let his fingerprints be taken, but a possible or probable drunken driver can refuse the one test that would definitely establish his guilt or innocence. What kind of test is the Department proposing? It is a chemical breath-analysis that the arresting officer can perform at the place of arrest.

Driving is a privilege, rather than an inalienable right, and with privileges come responsibilities. Thirty-four other states have laws like the one that has been proposed for Iowa, and by not having such a statute we are protecting the guilty without in any way benefiting the innocent. As a matter of fact, since there are some 64 other conditions that are capable of making an individual behave as though he were under the influence of liquor, the chemical test would provide a positive exoneration for drivers mistakenly suspected of drunkenness.

Pieces of legislation embodying these two pro-

posals will come up for consideration during the session of the General Assembly of Iowa that is to open in January. Let your senator and representatives know how you feel about them. Enlist the help of the groups and organizations of which you are a member. Each of us can help enact these valuable proposals into law.

STATE CONFERENCE OF FUTURE NURSES' CLUBS

Representatives of the Future Nurses' Clubs in Iowa met for a one-day conference in Dack Hall, the new recreational building for nurses at the Allen Memorial Hospital, in Waterloo, on Friday, November 7. Over 100 junior and senior girls, accompanied by their Auxiliary sponsors, represented 23 Clubs.

Following registration, the girls were served coffee, cocoa, rolls and doughnuts during a "get acquainted hour." Dr. Cecil W. Seibert, chief of staff at Allen Memorial, welcomed them, and gave them an excellent briefing on the duties of a nurse.

Mrs. H. C. Merillat, president of the State Auxiliary, spoke briefly on the interest that doctors' wives have in helping prospective nursing students and in promoting FNC activities. Then, the student nurses at Allen Memorial presented a skit that they had written entitled "Nursing" and portraying the life of a student nurse from the time she enters training until she graduates. It was both cleverly written and well acted, and it was enthusiastically recieved by the audience.

Miss Virginia Turner, superintendent of the nursing school, then talked on "Schools of Nursing in Iowa," giving much information on the various types of training available, the requirements for entrance, the curricula and the positions open to nurses who have finished the prescribed courses. Then, Miss Turner answered a number of questions from her audience.

A panel of four student nurses discussed "Aspects of Nursing," with one of the nursing instructors acting as moderator. The panelists, all of them ardent proponents of nursing, answered a number of questions about the social as well as the educational aspects of their school life. Then there were some demonstrations of nursing procedures and equipment for small groups in various parts of the auditorium.

Luncheon was served to the girls in the hospital cafeteria, and tours of Allen Memorial and St. Francis Hospitals followed.

Mrs. J. F. Gerken acted as mistress of ceremonies. Mrs. F. H. Entz, chairman of the State Auxiliary's Health Careers Recruitment Committee, was assisted by Mrs. V. H. Plager, the Black Hawk County Health Careers chairman, Mrs. R. D. Acker, the Black Hawk County Auxiliary president, and Mrs. C. A. Hanson, the Sixth District councilor, in planning the meeting and tours.

MILESTONES TO MARRIAGE

The principles of good mental health that our young people learn today will determine the well-being of our society tomorrow. Good home and family life isn't something that they can be relied upon to discover for themselves when they have need of it, and consequently it must be taught to them.

Upon the recommendation of the Mental Health Committee of our State Medical Society, the Iowa Auxiliary has undertaken to distribute some teaching materials in this field, a set of letters called "Milestones to Marriage," to high schools throughout the state. In addition, youth groups in some churches and some of the nursing education classes are using them. The program was started with a pilot group of 30 sets of letters, but now, within three years, there are well over 1,500 sets in use.

Because of the enthusiastic reception of these letters by both teachers and students, the Auxiliary is expanding the project even further, and it now has another 1,000 sets of letters ready for distribution. Schools are being urged to use them as a means of preventing ill-considered and consequently unhappy marriages, and of guarding the happiness and emotional stability of young men and women.

TODAY'S HEALTH

Give the whole family a gift this year—12 times. A subscription to TODAY'S HEALTH will be both healthful and helpful to your friends in many ways.

A very attractive gift card will be sent in your name to the people for whom you buy subscriptions, and the successive issues as they arrive all through next year will remind them of you and of your good wishes.

Incidentally, this is a good time to renew your own subscription to TODAY'S HEALTH.

Send your gift and renewal orders today to Mrs. R. C. McGeehon, Indianola, TODAY'S HEALTH Chairman.

MRS. FLYNN IS NATIONAL PROGRAM CHAIRMAN

Mrs. C. H. Flynn, of Clarinda, past president of the Woman's Auxiliary to the Iowa State Medical Society, has been appointed program chairman of the National Auxiliary.

She has compiled a brief and concise program outline for your use this year. Though it is obvious that all Auxiliaries cannot adopt every one of the program suggestions contained in it, each chapter will find some ideas that seem tailor-made for it alone.

COUNTY AUXILIARIES

Black Hawk

The Woman's Auxiliary to the Black Hawk County Medical Society had dinner on October 21 at the home of Mrs. Charles Manthey, in Waterloo. The speakers were Mrs. Oswald Thorson, who spoke on "The Art of Planning," and Mr. Robert Young, Jr., who presented his views in favor of the proposed five-man board of supervisors for Black Hawk County. Mrs. William Telfer, the program chairman, made the introductions.

Clay

Again this fall, the Clay County Woman's Auxiliary sponsored exhibits in the Health Building at the Clay County Fair, in Spencer. A registration desk was provided for those who wished materials on nursing careers and allied health occupations. The registrants represented Minnesota and South Dakota as well as Iowa. Twenty-six registered for nursing, nine for practical nursing, three for dietitian training and 12 for medical technology. Other exhibits concerned civil defense and TODAY'S HEALTH.

Mahaska

The Mahaska County Medical Auxiliary met for luncheon in mid-October at the Hotel Downing, in Oskaloosa. Plans were made for a covered-dish dinner at the home of Dr. and Mrs. L. F. Catterson for all Mahaska County doctors and their wives.

It was announced that the Auxiliary will again sponsor an essay contest for high school students, and tentative plans were discussed for the district Auxiliary meeting that was subsequently held in Oskaloosa, on November 18.

Page

Mrs. H. S. Frenkel, of Clarinda, president of the Page County Auxiliary, reports a new Future Nurses' Club has been organized in her home town. She recently entertained that group of girls and their sponsoring Auxiliary members, the school nurse and one of the nurses from the municipal hospital at a tea in her home. The new club is composed of junior and senior students with a definite interest in nursing.

The local hospital will cooperate by asking the girls to assist after school hours and on Saturdays, as well as in the nurses' aide program during the summer months. As a newly organized group, the girls elected to hold their second meeting at their hospital, rather than attend the state FNC conference. But they are already making plans to attend the 1959 state meeting of the FNC.

Polk

The Woman's Auxiliary to the Polk County Medical Society met for a 12:30 luncheon on Friday, November 14, in the Garden Room of the Kirkwood Hotel, Des Moines. Mr. Robert C. Phillips, a former F.B.I. investigator, spoke on "Communist Infiltration in the United States." Hostesses for the meeting were Mesdames Robert Updegraff, Richard Moore, John Sullivan and Ralph Heeren.

The Executive Board of the Polk County Medical Auxiliary met recently at the home of Mrs. Louis Goldberg.

NEWS NOTES

Friends of **Mrs. Roger Minkel,** former president of the Woman's Auxiliary to the Iowa State Medical Society, will be interested to know that she is now living in Upton, Wyoming, where **Dr. Minkel** has returned to private practice. Formerly of Fort Dodge, they have lived for the past several years in Lead, South Dakota, where Dr. Minkel was company doctor for a gold mining firm.

Mrs. H. C. Merillat, of Des Moines, and **Mrs. E. A. Larsen,** of Centerville, participated in the United Nations Day activities in Des Moines on October 21 as official representatives of the Woman's Auxiliary. They attended the tea at the governor's mansion honoring **Mrs. Franklin D. Roosevelt,** and Mrs. Merillat attended the meeting in the evening at the State House where Mrs. Roosevelt was the guest speaker.

Mrs. Merillat also represented the Auxiliary by attending the Friday evening, November 7, meeting of the Iowa Education Association, in the Des Moines Veterans Auditorium, at which **Mr. Clement Atlee** was the speaker. On November 18 she attended the Ninth District meeting, in Oskaloosa, and will attend a meeting of the Third and Fourth Districts in Sioux City on December 3. **Mrs. Robert Mason,** of Des Moines, accompanied her to Oskaloosa.

Dr. and Mrs. D. C. Wirtz, Dr. and Mrs. J. H. McNamee, Dr. and Mrs. G. S. Marquis, Dr. and Mrs. H. C. Merillat, and Dr. A. L. Nelson attended a meeting of Rock Island surgeons at the Statler-Hilton Hotel, in Dallas on October 30 and 31.

WOMAN'S AUXILIARY TO THE IOWA STATE MEDICAL SOCIETY

President—Mrs. H. C. Merillat, 116 Lincoln Place Drive, Des Moines 12
President-Elect—Mrs. E. A. Larsen, Centerville
Secretary—Mrs. Wm. C. Shinkle, 307 49th St., Des Moines 12
Treasurer—Mrs. E. A. Vorisek, 6205 Woodland Rd., Des Moines 12
Editor of THE NEWS—Mrs. E. T. Burke, 601 S.W. 42nd Street, Des Moines 12
Asst. Editor of THE NEWS—Mrs. D. F. Crowley, Jr., 663 44th Street, Des Moines 12

PRE-SCHOOL VISION SCREENING BEGINS

Thirty-two women, some of them members of the Polk County Medical Auxiliary and others alumnae of Delta Gamma, a social sorority for college women, have begun screening the vision of pre-school youngsters in Des Moines under the auspices of the National Society for the Prevention of Blindness, Inc. They first completed a ten-hour training course given by two representatives from the Society's New York headquarters.

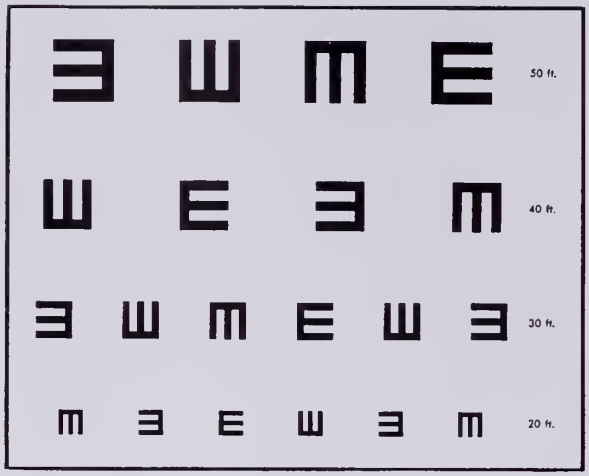
Working in teams of three, the volunteers are conducting the tests at any school, center or agency that requests the program. It is not an eye examination, and no diagnoses are attempted on a basis of its results. Dr. Arthur H. Downing, a Des Moines ophthalmologist who is chairman of the local advisory committee for the Society, explains that the program has been conducted in other parts of the country during the past eight years and has proved valuable in the discovery of certain types of visual impairment. When the results have been abnormal, the child's parents are advised to consult their family physician.

A child under five years of age often does not know that he cannot see well and does not complain, Dr. Downing says. Some types of poor vision such as amblyopia can best be remedied when they are found before the age of five.

The woman volunteers set up the screening as a game. The chart which youngsters "read" at a distance of 20 feet, is the Snellen illiterate E-chart used by ophthalmologists for persons who cannot read, and the E's are represented to the children as "little tables." Looking first with both eyes, then one eye at a time, the child indicates with his hands and arms the direction in which the E's are "pointing." Standards for "passing" the test were set up in advance by Des Moines ophthalmologists, pediatricians, and school and city public health nurses. An important part of the volunteer's task is to keep the screening process moving pleasantly, encouraging and reassuring



Christine Kukowski, 4, Windsor Day pre-school pupil, taking test in a vision screening program, indicates with hand the direction "little table's legs" are extended on chart (shown in smaller picture) 20 feet away. Mrs. Richard Moore, volunteer for Polk County Medical Society Auxiliary, holds card over Christine's left eye, while Florence Cunningham (standing), nurse consultant from National Society for Prevention of Blindness, Inc., supervises screening. Mrs. Earl Redfield (seated at table), observes Christine and records her performance, as other volunteers look on. From left, are Mrs. Floyd Burgeson, Mrs. James Downing, Mrs. Ben Kilgore (partly hidden behind Mrs. Redfield), Mrs. J. F. Rider and Mrs. R. J. Eldredge, Jr.



The Snellen Illiterate E Chart used in testing the vision of pre-school children.

the child so that he is relaxed and attentive, and does his best.

Mrs. Charles Wittmack, Jr., 4 Foster Drive, Des Moines, is chairman of the Iowa Committee of the National Society for the Prevention of Blindness, Inc. Mrs. Gerald Hilton, 3912 Lincoln Place Drive, Des Moines, and Mrs. John T. Bakody, 2929 Southwest Thirtieth Street, Des Moines, are co-chairmen of the vision-screening project.

HEALTH NEEDS OF THE AGED TAKE ON POLITICAL IMPORTANCE

Assistant Secretary Elliot Richardson, the number-three man in the Department of Health, Education and Welfare, underlined the necessity for faster action by local communities and private agencies in solving the health care problems of the aged, when he addressed a recent meeting of the American Public Health Association. "Unless private, voluntary or local solutions to these problems are found," he warned, "the pressure for action at higher levels of government will continue to mount. Too few communities have adequate facilities for long-term care of the chronically ill and dependent elderly persons, and very few places pay full costs for the hospital care of the indigent, many of whom are aged.

"For these and other reasons," he continued, "the cost of health care for the aged has become a political problem of great moment. It will not go away. The real issues center around the degree of public action demanded. Some would say that far more federal action is needed; others insist that Uncle Sam is already in too deep."

In conclusion, Mr. Richardson declared, "The activities of local jurisdictions in working out solutions to the health problems of the aged are spotty, sporadic and for the most part inadequate."

AMEF NEWS NOTES

In October, the headquarters staff of the American Medical Education Foundation, the AMA subsidiary that solicits contributions from physicians for the support of medical schools, reported that contributions were running $27,000 ahead of the same time last year.

* * *

Contributions from component groups of the Woman's Auxiliary to the AMA totaled a record $126,367 for the 1957-1958 year. The goal for 1958-1959 is $160,000.

* * *

Indiana, last year, became the sixth state to institute a dues increase program for AMEF.

Dues-increase programs have also been adopted by many county societies, and the idea continues to grow in popularity. Recently eight Texas counties voted dues increases.

Illinois, one of the largest of the six states, has begun establishing local AMEF committees to receive gifts from doctors above their gifts through state dues. Nevada, another of the six, has been so successful in its program of additional giving that figures show better than a 100 per cent participation by its members and a per capita gift that led the nation last year.

* * *

Last summer, the Alaska Territorial Medical Association forwarded a check for $1,000. Although individual Alaskan physicians had made contributions previously, that was the first gift from the Territorial Association treasury. Shortly afterward, a gift of $244.50 was received from the Woman's Auxiliary to the Alaska Society. The 1958 AMERICAN MEDICAL DIRECTORY lists 89 physicians in Alaska as AMA members.

* * *

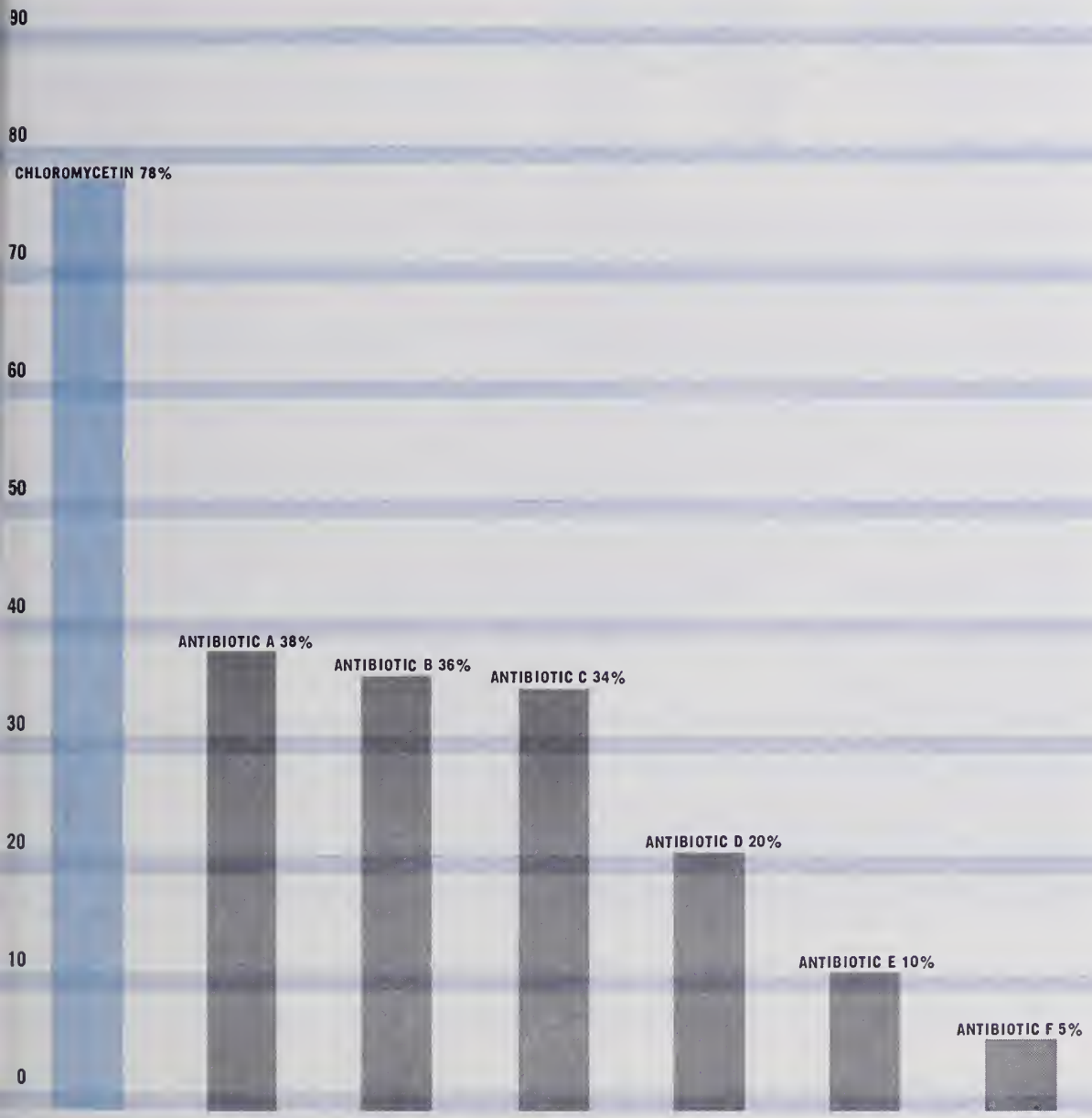
The Arizona Medical Association recently adopted a resolution requesting the usual donors of calendars, desk sets, etc., at Christmas time to give the cash equivalent to AMEF instead of maintaining their previous policy.

* * *

The AMEF chairman for Iowa is T. F. Thornton, M.D., 505 Black Building, Waterloo.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to Mrs. Lammey, 529-36th Street, Des Moines 12, Iowa.

COMPARATIVE SENSITIVITY OF MIXED PROTEUS SPECIES TO CHLOROMYCETIN AND SIX OTHER WIDELY USED ANTIBIOTIC AGENTS*



*This graph is adapted from Waisbren and Strelitzer.[15] It represents *in vitro* data obtained with clinical material isolated between the years 1951 and 1956. Inhibitory concentrations, ranging from 3 to 25 mcg. per ml., were selected on the basis of usual clinical sensitivity.

Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVIII JANUARY, 1958 No. 1

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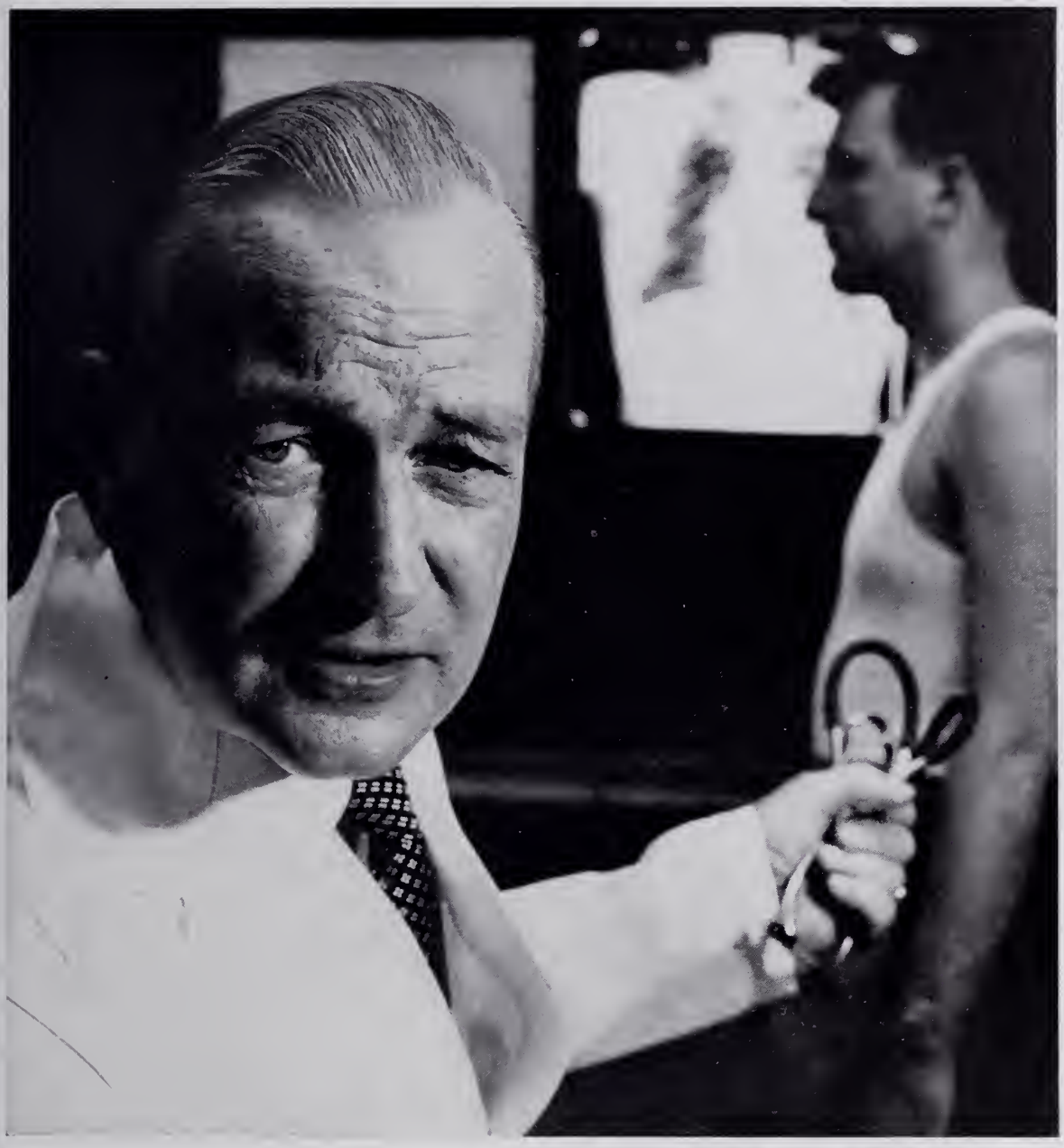
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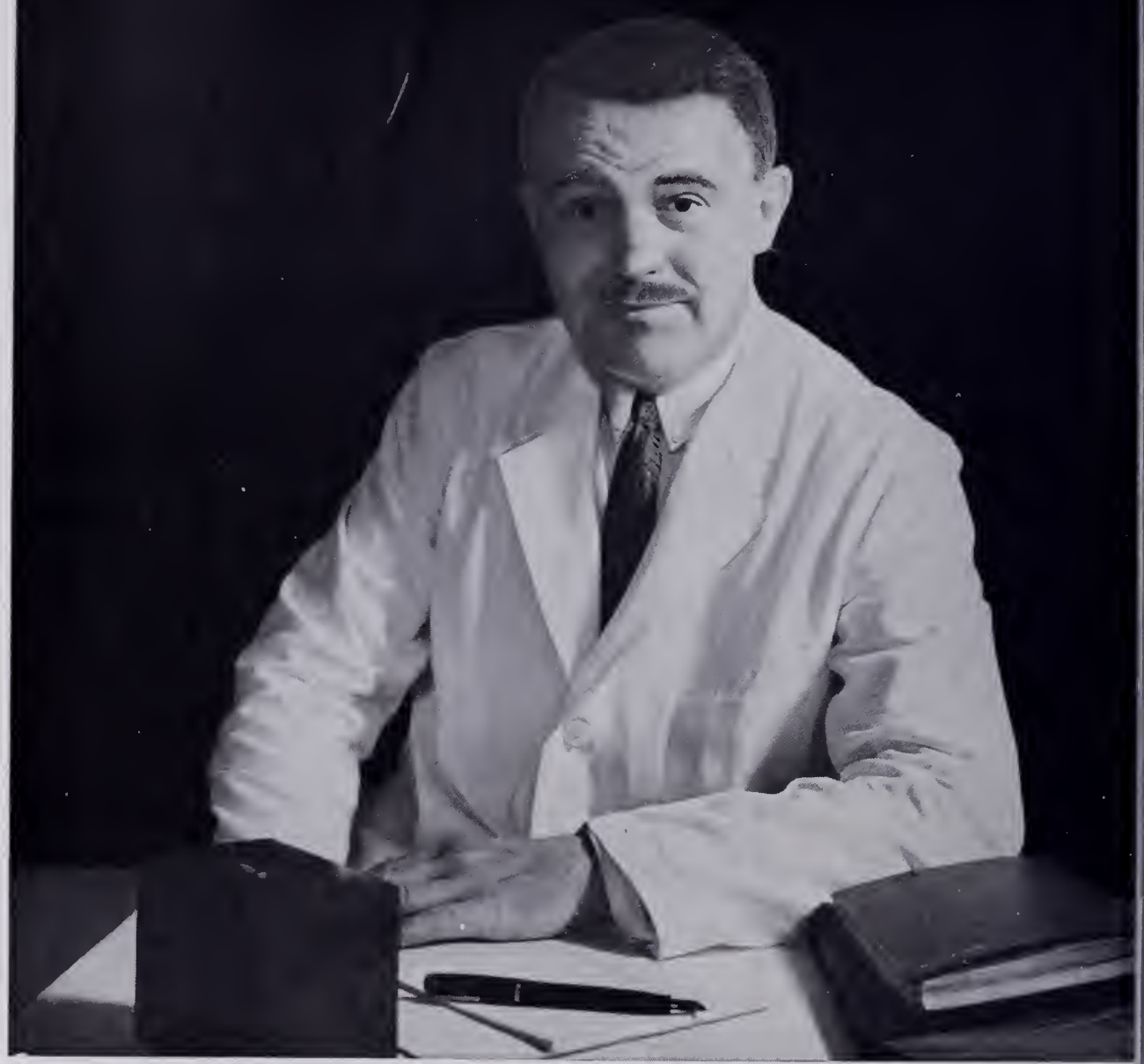
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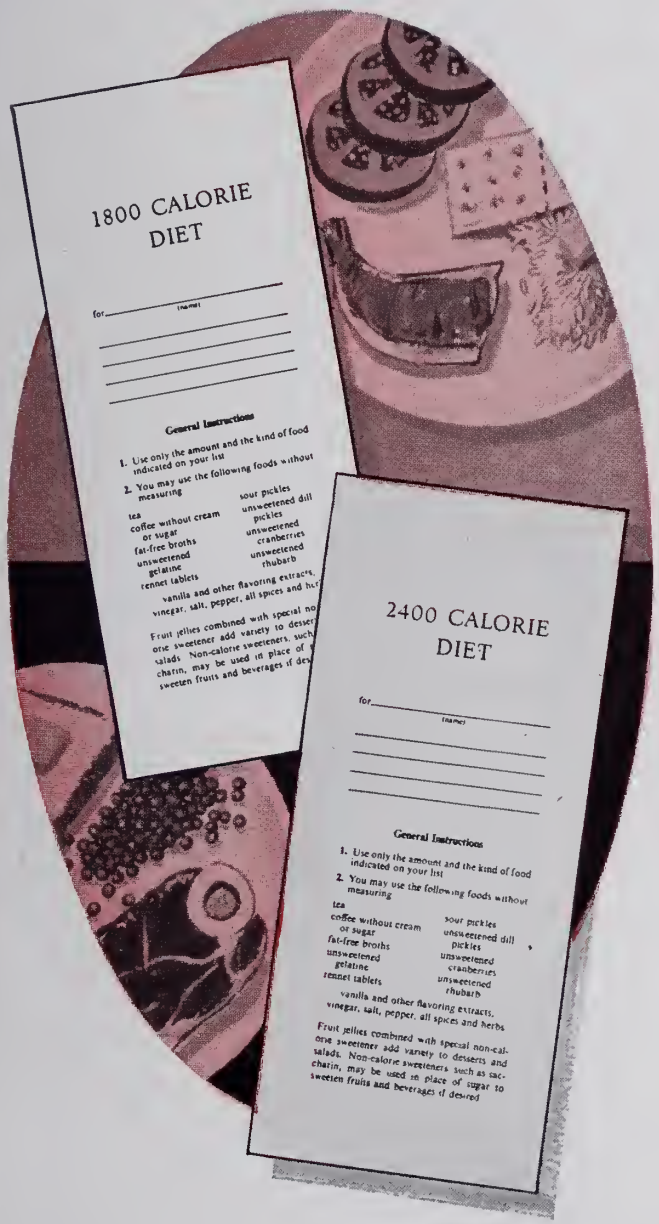
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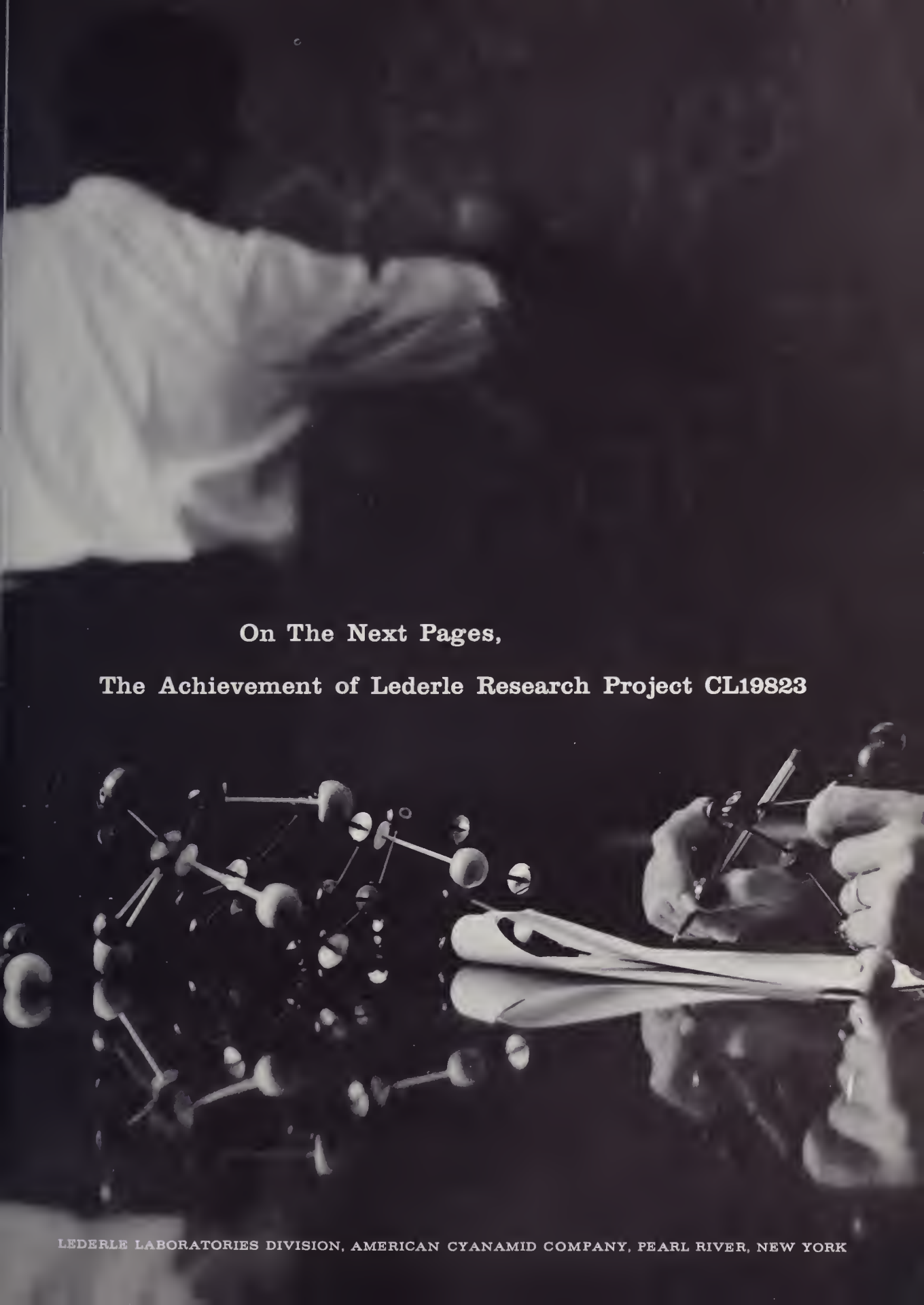
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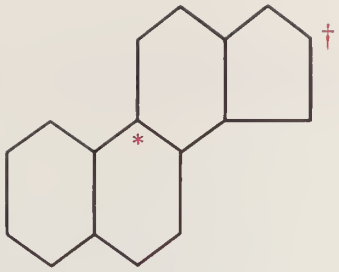
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Biological Effects of Aristocort

with particular emphasis on:

Kidney function

Animal studies on ARISTOCORT[1] have not demonstrated any interference with creatinine or urea clearance. Autopsy surveys of organs of animals on prolonged study of this medication have shown no renal damage.

Sodium and water

ARISTOCORT produced an increase of 230 per cent of water diuresis and 145 per cent sodium excretion when compared to control animals.[1] Metabolic balance studies in man revealed an average negative sodium balance of 0.8 Gm. per day throughout a 12-day period on a dosage of 30 mg. per day.[2] Additional balance studies showed actual sodium loss when ARISTOCORT was given in doses of 12 mg. daily.[3] Other investigators observed significant losses of sodium and water during balance studies and that those patients with edema from some older corticosteroids lost it when transferred to ARISTOCORT.[4,5] In two studies of various rheumatic disorders (194 cases) on prolonged treatment, sodium and water retention was not observed in a single case.[6,7]

Potassium and chlorides

There was no active excretion of potassium or chloride ions in animals given maintenance doses of ARISTOCORT 25 times that found to be clinically effective.[1] Potassium balance studies in humans[2,3] revealed that negative balance did not occur even with doses somewhat higher than those employed for prolonged therapy in rheumatoid arthritis. Hypokalemia, hyperkalemia or hypochloremia did not occur, when tested, in 194 patients with rheumatoid arthritis treated for up to ten and one-half months.[6,7]

Calcium and phosphorus

Phosphate excretion in animals[1] was not changed from normal even with amounts 25 times greater (by body weight) than those known to be clinically effective. Human metabolic balance studies[3] demonstrated that no change in calcium excretion occurred on dosages usually employed clinically when the compound is administered for its anti-inflammatory effect. Even at a dosage level twice this, slight negative balance appeared only during a short period.

Protein and nitrogen balance

Positive nitrogen balance was maintained during a human metabolic study on maintenance dosage of 12 mg. per day.[3] At dosages two to three times normal levels, positive balance was maintained except for occasional short periods in metabolic studies of several weeks' duration.[2,3]

There was always a tendency for normalization of the A/G ratio and elevation of blood albumin when ARISTOCORT was used in treating the nephrotic syndrome.[8]



Liver glycogen deposition and inflammatory processes

An intimate correlation exists between the ability of a corticosteroid to cause deposition of glycogen in the liver and its capacity to ameliorate inflammatory processes.

In animal liver glycogen studies, relative potencies of ARISTOCORT over cortisone of up to 40 to 1 have been observed. Compared to ARISTOCORT, five to 12 times the amount of prednisone is required to produce varying but equal amounts of glycogen deposition in the liver.[1]

Most patients show normal fasting blood sugars on ARISTOCORT. Diabetic patients on ARISTOCORT may require increased insulin dosage, and occasional latent diabetics may develop the overt disease.

Anti-inflammatory potency of ARISTOCORT was determined by both the asbestos pellet[1] and cottonball[9] tests. It was found to be nine to 10 times more effective than hydrocortisone in this respect.

Gastric acidity and pepsin

The precise mode of ulcerogenesis during treatment with corticosteroids is not known. There is much experimental evidence for believing this may be related to the tendency of these agents to increase gastric pepsin and acidity—and this cannot be abolished by vagotomy, anticholinergic drugs or gastric antral resection.[10] Clinical studies[11] of patients on ARISTOCORT revealed that uropepsin excretion is not elevated. Further, their basal acidity and gastric response to histamine stimulation were within normal limits.

Central nervous system

The tendency of corticosteroids to produce euphoria, nervousness, mental instability, occasional convulsions and psychosis is well known.[12] The mechanism underlying these disturbances is not well understood.

ARISTOCORT, on the contrary, does not produce a false sense of well being, insomnia or tension except in rare instances. In the treatment of 824 patients, for up to one year, not a single case of psychosis has been produced. In general, it appears to maintain psychic equilibrium without producing cerebral stimulation or depression.

Bibliography

1. Experimental Therapeutics Section, Lederle Laboratories. To be published. 2. Bunim, J. J., Whedon, G., and Black, R. L.: Personal Communication. 3. Hellman, L., Zumoff, B., Schwartz, M. K., Gallagher, T. F., Berntsen, C. A., and Freyberg, R. H.: Antirheumatic and Metabolic Effects of a New Synthetic Steroid, paper quoted in Bull. Rheumat. Dis. 7: 130, 1957. 4. Spies, T. D.: South. M. J. 50: 216, (Feb.) 1957. 5. Freyberg, R. H.: Personal Communication. 6. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at the International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 7. Hartung, E. F.: To be published. 8. Hellman, L., Zumoff, B., Kretschmer, N. and Kramer, B.: Personal Communication. 9. Dorfman, R. I., and Dorfman, A. S.: Personal Communication. 10. Gray, S. J., Ramsey, C. G., Villarreal, R., and Krakauer, L. J.: Edited by H. Selye and G. Heuser in: Fifth Annual Report on Stress, 1955-56. M.D. Publications, Inc., New York, 1956, p. 138. 11. Dubois, E. L.: Personal Communication. 12. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics 19:95, 1957.

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The Promise of Aristocort in Reduction of Side Effects

It is axiomatic to affirm that the undesirable collateral hormone effects of corticosteroids increase in frequency and severity the higher the dosage and the longer used.

It has also become well recognized that the most serious of the major side effects from long-term corticosteroid treatment are peptic ulcers, osteoporosis with fracture, drug psychosis and euphoria, and sodium and water retention leading often to general tissue edema and hypertension.

It is significant that of the close to 400 patients on the lower dosage schedules found effective in bronchial asthma and dermatologic conditions, only 1 case of peptic ulceration has developed. No other of the above side effects have been observed even though ARISTOCORT was administered continuously to them for periods as long as one year.

The treatment of rheumatoid arthritis with steroids appears to result in the highest incidence of side effects. For this reason, the side effects associated with ARISTOCORT therapy in 292 patients with rheumatoid arthritis are below compared to the reported incidence of those from prednisone and prednisolone.

Peptic Ulcer

The most recent study available on the incidence of peptic ulceration in patients with rheumatoid arthritis on long-term prednisone therapy reported 12 ulcers in 49 cases (24 per cent).[1] Lowest incidence of 6.5 per cent has been recorded in a group of patients on this drug for six to nine months.[2] Four of six ulcers, in another series of 39 patients on prednisone,[3] appeared in less than three months of therapy.

The occurrence of peptic ulcer in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is approximately 1 per cent (2 of the 3 occurred in patients transferred from prednisone). In the remaining 532 cases recently analyzed, only one ulcer has been discovered in a patient who apparently had no ulcer when he was changed from another steroid.

Osteoporosis and Compression Fractures

The incidence of compressed fractures of vertebrae—and to a lesser extent in other bones—is high in patients on prolonged therapy with all previous corticosteroids.[4] One group of 49 patients[1] on long-term prednisone treatment experienced nine vertebral fractures (18 per cent); another series of 39 developed eight fractures (20 per cent),[3] four to 15 months after the beginning of steroid administration.

The occurrence of osteoporosis with compression fracture in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is 0.33 per cent (1 case[5]). Although these results are encouraging, determination of the true incidence of osteoporosis will have to await the passage of more time.

Euphoria and Psychosis

The euphoria so commonly produced by all previous corticosteroids has seemed a most desirable attribute to patients. In penalty, however, they have often later to pay for this by mental disturbances, varying from mild and transitory to severe depression and psychosis,[4] and toxic syndromes producing even convulsions and death.[6]

Since the onset of these complications is not directly related to duration of steroid administration,[7] the fact that not one case of psychosis occurred in 824 patients treated with ARISTOCORT, is most encouraging.

Sodium Retention—Hypertension—Potassium Depletion

When 17 patients were changed from prednisone to ARISTOCORT, 11 rapidly lost weight although only one had had visible edema.[8] Sodium and water retention, hypokalemia or hyperkalemia and steroid hypertension did not appear in 194 rheumatoid arthritis patients treated with ARISTOCORT.[5,9]

The interrelation between blood and body sodium, and steroid hypertension has long been generally appreciated.[10,11] Except in rare instances, or when unusually high doses are used (e.g., leukemia), the problem of edema and hypertension caused by sodium and water retention, has been eliminated with ARISTOCORT.

Minor Side Effects

Collateral hormonal effects of less serious consequence occurred with approximately the same frequency as with the older corticosteroids.[5] These include erythema, easy bruising, acne, hypertrichosis, hot flashes and vertigo. Several investigators have reported symptoms not previously described as occurring with corticosteroid therapy, e.g., headaches, lightheadedness, tiredness, sleepiness and occasional weakness.

Moon facies and buffalo humping have been seen in some patients on ARISTOCORT. However, ARISTOCORT therapy, in many instances, resulted in diminution of "Cushingoid" signs induced by prior therapy. Where this occurs, it may be related to reduced dosage on which patients can be maintained.

Reduction of dosage by one-third to one-half

In a double-blind study of comparative dosage in patients with rheumatoid arthritis,[12] 70 per cent of the cases were as well controlled on a dose of ARISTOCORT one-half that of prednisone. A general recommendation can be made that ARISTOCORT be used in doses two-thirds that of prednisone or prednisolone in the treatment of rheumatoid arthritis. There are individual variations, however, and each patient should be carefully titrated to produce the desired amount of disease suppression.

Comparative studies, of patients changed from prednisone, indicate reduced dosage of ARISTOCORT in bronchial asthma and allergic rhinitis (33 per cent),[8] and in inflammatory and allergic skin diseases (33-50 per cent).[13,14]

General Precautions and Contraindications

Administration of ARISTOCORT has resulted in a lower incidence of the major serious side effects, and in fewer of the troublesome minor side effects known to occur with all previously available corticosteroids. However, since it is a highly potent glucocorticoid, with profound metabolic effects, all traditional contraindications to corticosteroid therapy should be observed.

No precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

Since ARISTOCORT has less of the traditional side effects, the appearance of sodium and water retention, potassium depletion, or steroid hypertension cannot be used as signs of overdosage. As a rule patients will lose some weight during the first few days of treatment as a result of urinary output, but then the weight levels off.

Patients do not develop the abnormally voracious appetite common to previous corticosteroid administration. In fact, some patients experienced anorexia, and it is advisable to inform patients of this and to recommend they maintain a normal intake of food, with emphasis on liberal protein intake.

While precipitation of diabetes, peptic ulcer, osteoporosis, and psychosis can be expected to appear rarely from ARISTOCORT, they must be searched for periodically in patients on long-term steroid therapy.

Traditional precautions should be observed in gradually discontinuing therapy, in meeting the increased stress of operation, injury and shock, and in the development of intercurrent infection.

There is one overriding principle to be observed in the treatment of any disease with ARISTOCORT. *The amount of the drug used should be carefully titrated to find the smallest possible dose which will suppress symptoms.*

Bibliography

1. Bunim, J. J., Black, R. L., and Yielding, K. L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Boland, E. W.: J.A.M.A. *160:* 613, 1956. 3. Black, R. L., Yielding, K. L., and Bunim, J. J.: J. Chronic Dis. 5:751, 1957. 4. Bunim, J. J.: Bull. New York Acad. Med. 33:461, 1957. 5. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 6. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957. 7. Goolker, P., and Schein, J.: Psychosom. Med. *15*:589, 1953. 8. Sherwood, H., and Cooke, R. A.: J. Allergy *28*:97, 1957. 9. Hartung, E. F.: Personal Communication. 10. Schroeder, H. A.: J.A.M.A. *162*:1362, 1956. 11. Thorn, G. W., Laidlaw, J. C., and Goldfein, A.: Ciba Found. Coll. on Endocrinology, J. & A. Churchill, Ltd., London, *8*:343, 1955. 12. Freeman, H., Bachrach, S., McGilpin, H. H., and Dorfman, R. I.: Personal Communication. 13. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: To be published. 14. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.

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The Promise of Aristocort in Rheumatoid Arthritis

ARISTOCORT *therapy has been intensely and extensively studied for periods up to one year on 292 patients with rheumatoid arthritis.*

Significant is the fact that most patients were *severe* arthritics, transferred to ARISTOCORT from other corticosteroids because satisfactory remission had not been attained, or because the seriousness of collateral hormonal effects had made discontinuance desirable.

Results of treatment

Freyberg and associates[1] treated 89 patients with rheumatoid arthritis (A. R. A. Class II or III and Stage II or III). Of these, 51 were on ARISTOCORT therapy from three to over 10 months. In all but a few patients, satisfactory suppression of rheumatoid activity was obtained with 10 mg. per day. Thirteen were controlled on 6 mg. or less a day, and for periods to 180 days. The investigators reported therapeutic effect in most cases to be A. R. A. Grade II (impressive) and that marked reduction in sedimentation rates occurred.

Another interesting observation in this study: Of the 89 patients treated, 12 had active ulcers, developed from prior steroid therapy. *In six patients, the ulcers healed while on doses of* ARISTOCORT *sufficient to control arthritic symptoms.*

Hartung[2] treated 67 cases of rheumatoid arthritis for up to 10 months. He found the optimum maintenance dose to be 11 mg. per day. Nineteen of these patients were treated for six to 10 months with an "excellent" therapeutic response.

Dosage and course of therapy

The initial dosage range recommended is 14 to 20 mg. per day—depending on the severity and acuteness of signs and symptoms. Dosage is divided into four parts and given with meals and at bedtime. Anti-rheumatic effect may be evident as early as eight hours, and full response often obtained within 24 hours. This dosage schedule should be continued for two or three days, or until all acute manifestations of the disease have subsided, whichever is later.

The maintenance level is arrived at by reduction of the total daily dosage in decrements of 2 mg. every three days. The range of maintenance therapy has been found to be from 2 mg. to 15 mg. per day—with only a very occasional patient requiring as much as 20 mg. per day. Patients requiring more than this should not be long continued on steroid therapy.

The aim of corticosteroid therapy in rheumatoid arthritis is to suppress the disease only to the stage which will enable the patient to carry out the required activities of normal living or to obtain reasonable comfort. The maintenance dose of ARISTOCORT to achieve this end is arrived at while making full use of all other established methods of controlling the disease.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Hartung, E. F.: Paper presented at Florida Academy of General Practice, St. Petersburg, Florida, Nov. 2, 1957.

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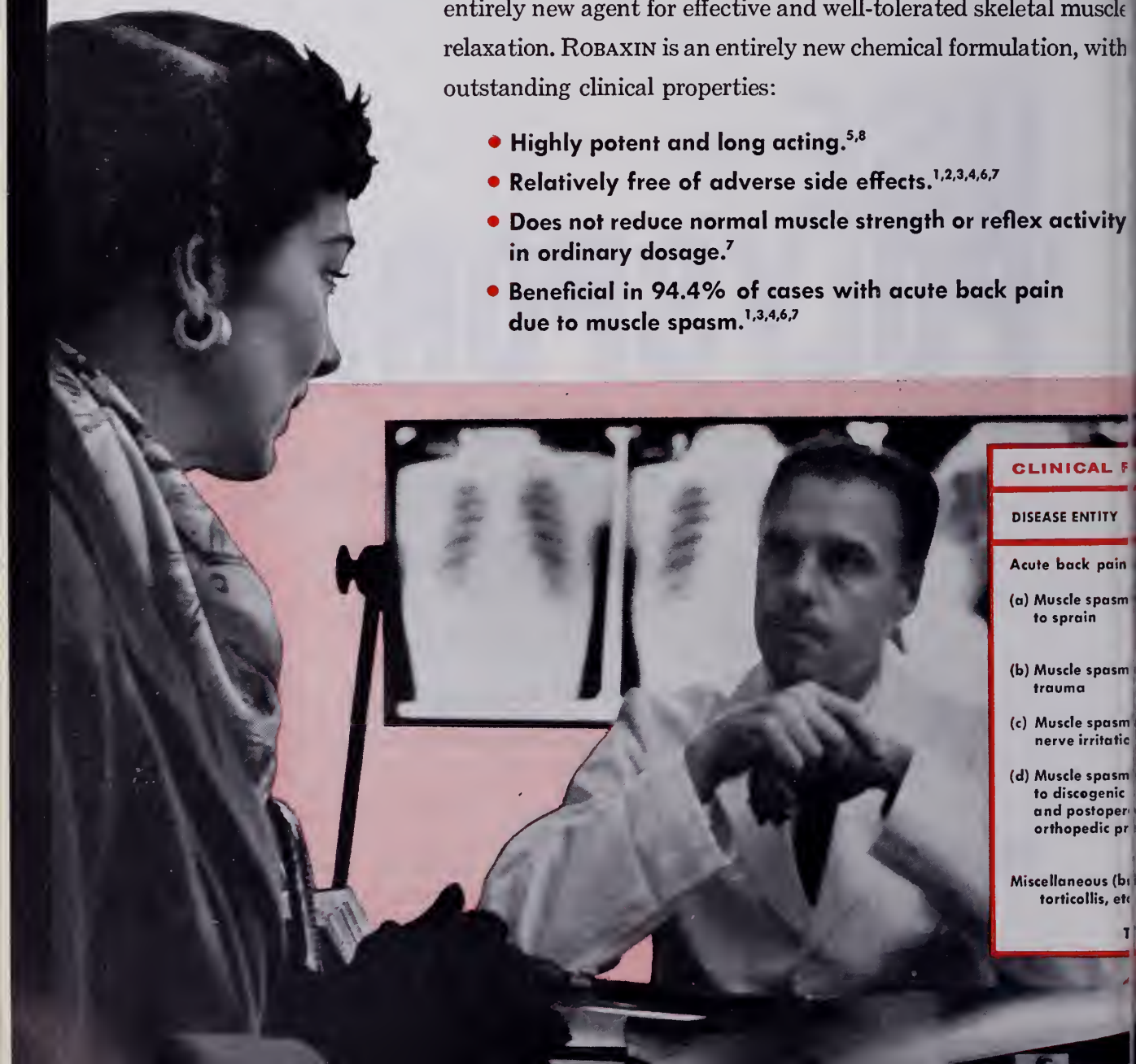
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- **Relatively free of adverse side effects.**[1,2,3,4,6,7]
- **Does not reduce normal muscle strength or reflex activity in ordinary dosage.**[7]
- **Beneficial in 94.4% of cases with acute back pain due to muscle spasm.**[1,3,4,6,7]



CLINICAL F
DISEASE ENTITY
Acute back pain
(a) Muscle spasm to sprain
(b) Muscle spasm trauma
(c) Muscle spasm nerve irritatic
(d) Muscle spasm to discogenic and postoper orthopedic pr
Miscellaneous (b torticollis, et



baxin®

(Methocarbamol Robins, U.S. Pat. No. 2770649)

Highly specific action

ROBAXIN is highly specific in its action on the internuncial neurons of the spinal cord – with inherently sustained repression of multisynaptic reflexes, but with no demonstrable effect on monosynaptic reflexes. It thus is useful in the control of skeletal muscle spasm, tremor and other manifestations of hyperactivity, as well as the pain incident to spasm, without impairing strength or normal neuromuscular function.

Beneficial in 94.4% of cases tested

When tested in 72 patients with acute back pain involving muscle spasm, ROBAXIN induced marked relief in 59, moderate relief in 6, and slight relief in 3 – or an over-all beneficial effect in 94.4%.[1,3,4,6,7] No side effects occurred in 64 of the patients, and only slight side effects in 8. In studies of 129 patients, moderate or negligible side effects occurred in only 6.2%.[1,2,3,4,6,7]

OBAXIN IN ACUTE BACK PAIN[1,3,4,6,7]

URATION OF EATMENT	DOSE PER DAY (divided)	RESPONSE marked	mod.	slight	neg.	SIDE EFFECTS
-42 days	3-6 Gm.	17	1	0	0	None, 16 Dizziness, 1 Slight nausea, 1
42 days	2-6 Gm.	8	1	3	1	None, 12 Nervousness, 1
240 days	2.25-6 Gm.	4	1	0	0	None, 5
28 days	1.5-9 Gm.	24	3	0	3	None, 25 Dizziness, 1 Lightheadedness, 2 Nausea, 2 *
60 days	4-8 Gm.	6	0	0	0	None, 6
		59	6	3	4	*Relieved on reduction of dose

References: **1.** Carpenter, E. B.: Publication pending. **2.** Carter, C. H.: Personal communication. **3.** Forsyth, H. F.: Publication pending. **4.** Freund, J.: Personal communication. **5.** Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. **6.** Nachman, H. M.: Personal communication. **7.** O'Doherty, D.: Publication pending. **8.** Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

Indications – Acute back pain associated with: (a) muscle spasm secondary to sprain; (b) muscle spasm due to trauma; (c) muscle spasm due to nerve irritation; (d) muscle spasm secondary to discogenic disease and postoperative orthopedic procedures; and miscellaneous conditions, such as bursitis, fibrositis, torticollis, etc.

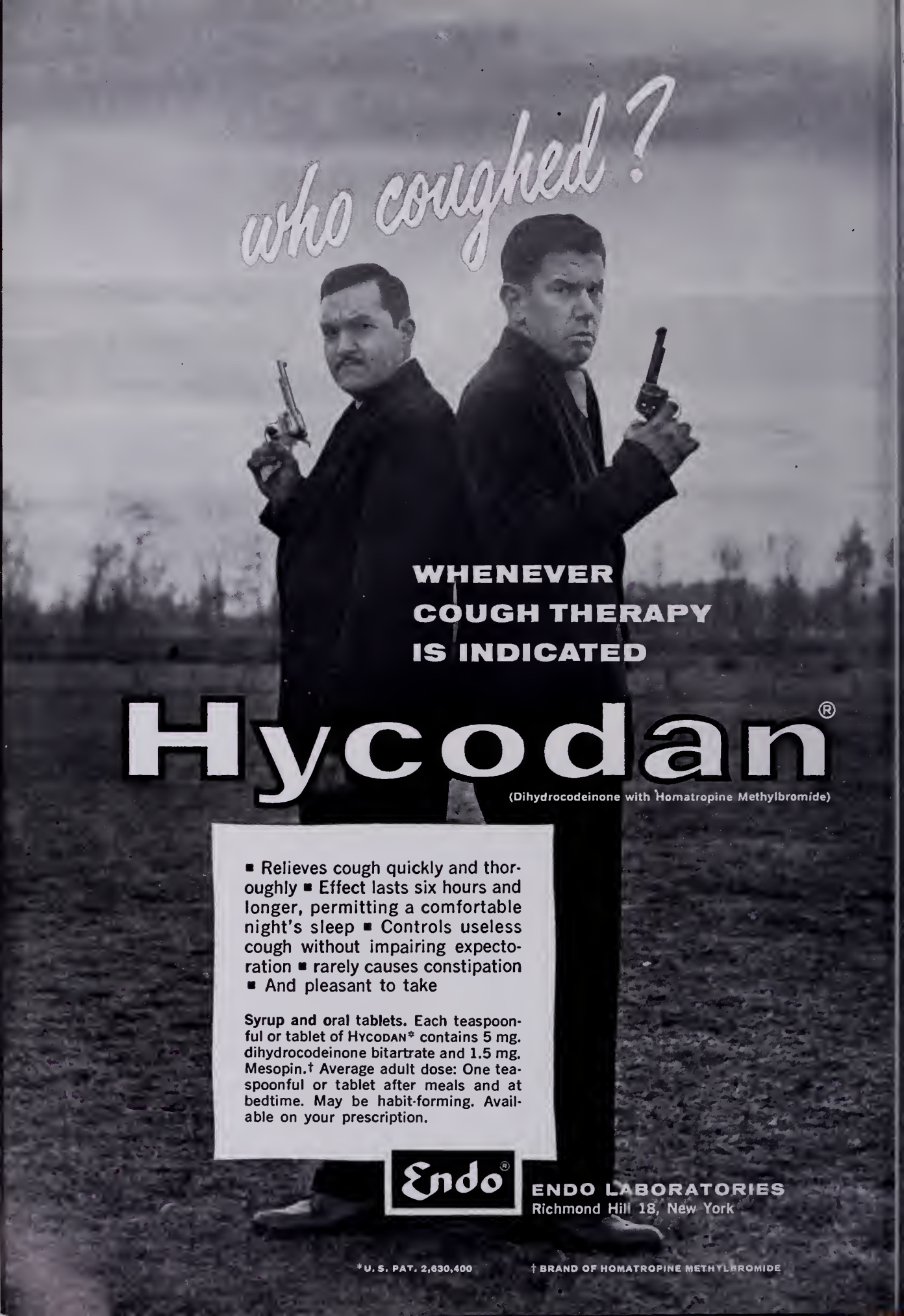
Dosage – Adults: Two tablets 4 times daily to 3 tablets every 4 hours. Total daily dosage: 4 to 9 Gm. in divided doses.

Precautions – There are no specific contraindications to Robaxin and untoward reactions are not to be anticipated. Minor side effects such as lightheadedness, dizziness, nausea may occur rarely in patients with unusual sensitivity to drugs, but disappear on reduction of dosage. When therapy is prolonged routine white blood cell counts should be made since some decrease was noted in 3 patients out of a group of 72 who had received the drug for periods of 30 days or longer.

Supply – Robaxin Tablets, 0.5 Gm., in bottles of 50.

A. H. ROBINS CO., INC., Richmond 20, Va.

Ethical Pharmaceuticals of Merit since 1878



WHENEVER COUGH THERAPY IS INDICATED

Hycodan®

(Dihydrocodeinone with Homatropine Methylbromide)

- Relieves cough quickly and thoroughly
- Effect lasts six hours and longer, permitting a comfortable night's sleep
- Controls useless cough without impairing expectoration
- rarely causes constipation
- And pleasant to take

Syrup and oral tablets. Each teaspoonful or tablet of HYCODAN* contains 5 mg. dihydrocodeinone bitartrate and 1.5 mg. Mesopin.† Average adult dose: One teaspoonful or tablet after meals and at bedtime. May be habit-forming. Available on your prescription.

Endo®

ENDO LABORATORIES
Richmond Hill 18, New York

*U. S. PAT. 2,630,400

†BRAND OF HOMATROPINE METHYLBROMIDE

the chill

the cough

the aching muscles

the fever



Viral upper respiratory infection. . . . For this patient, your management will be twofold—prompt symptomatic relief plus the prevention and treatment of bacterial complications. PEN·VEE·*Cidin* backs your attack by broad, multiple action. It relieves aches and pains, and reduces fever. It counters depression and fatigue. It alleviates cough. It calms the emotional unrest. And it dependably combats bacterial invasion because it is the only preparation of its kind to contain penicillin V.

SUPPLIED: Capsules, bottles of 36. Each capsule contains 62.5 mg. (100,000 units) of penicillin V, 194 mg. of salicylamide, 6.25 mg. of promethazine hydrochloride, 130 mg. of phenacetin, and 3 mg. of mephentermine sulfate.

PHYSICIANS' COUNCIL INFORMATION ON CHILD HEALTH

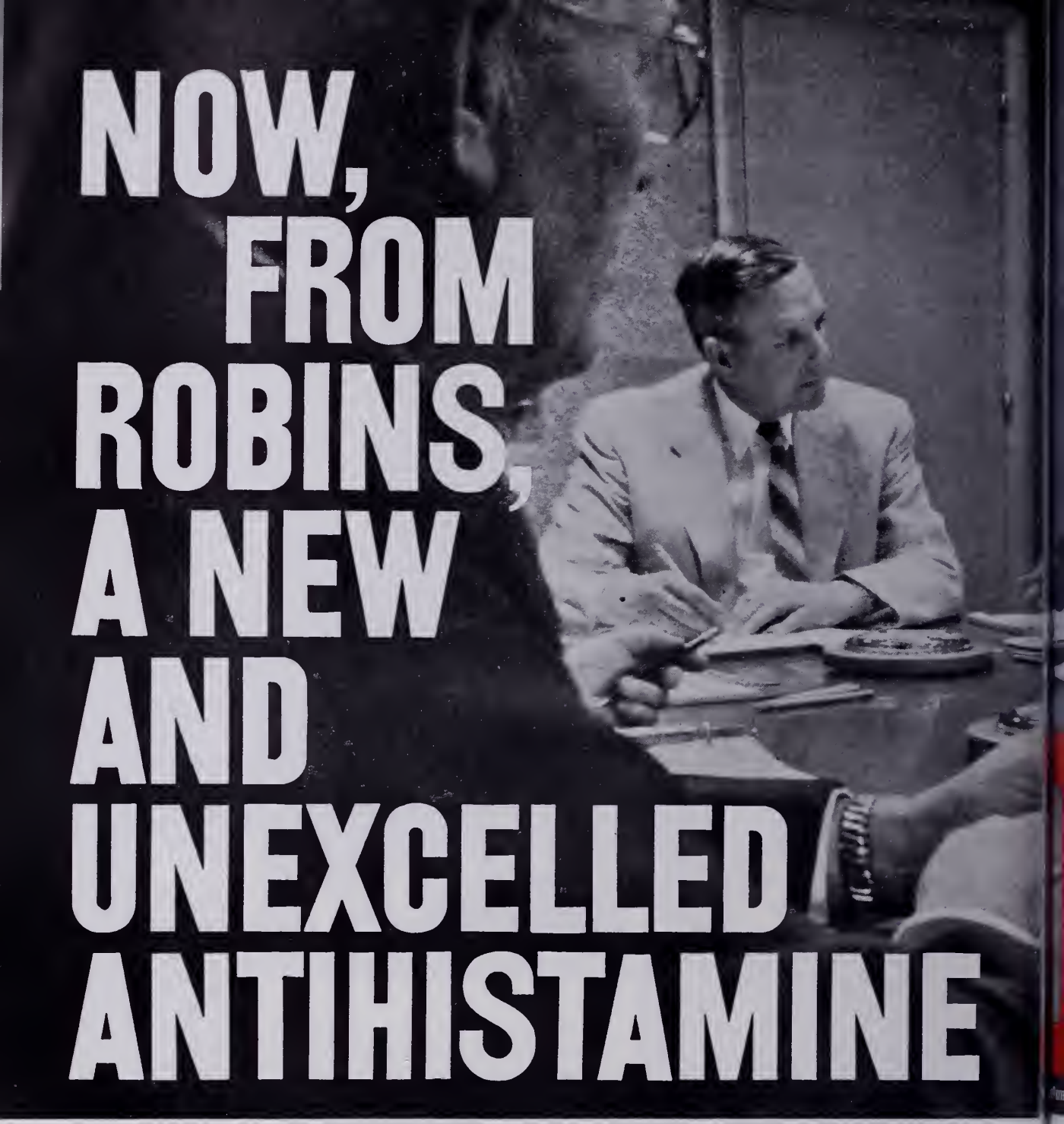
This advertisement conforms to the Code for Advertising of the Physicians' Council for Information on Child Health.

PEN·VEE·*Cidin*®

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Penicillin V with Salicylamide, Promethazine Hydrochloride, Phenacetin, and Mephentermine Sulfate, Wyeth

Philadelphia 1, Pa.



NOW, FROM ROBINS, A NEW AND UNEXCELLED ANTIHISTAMINE

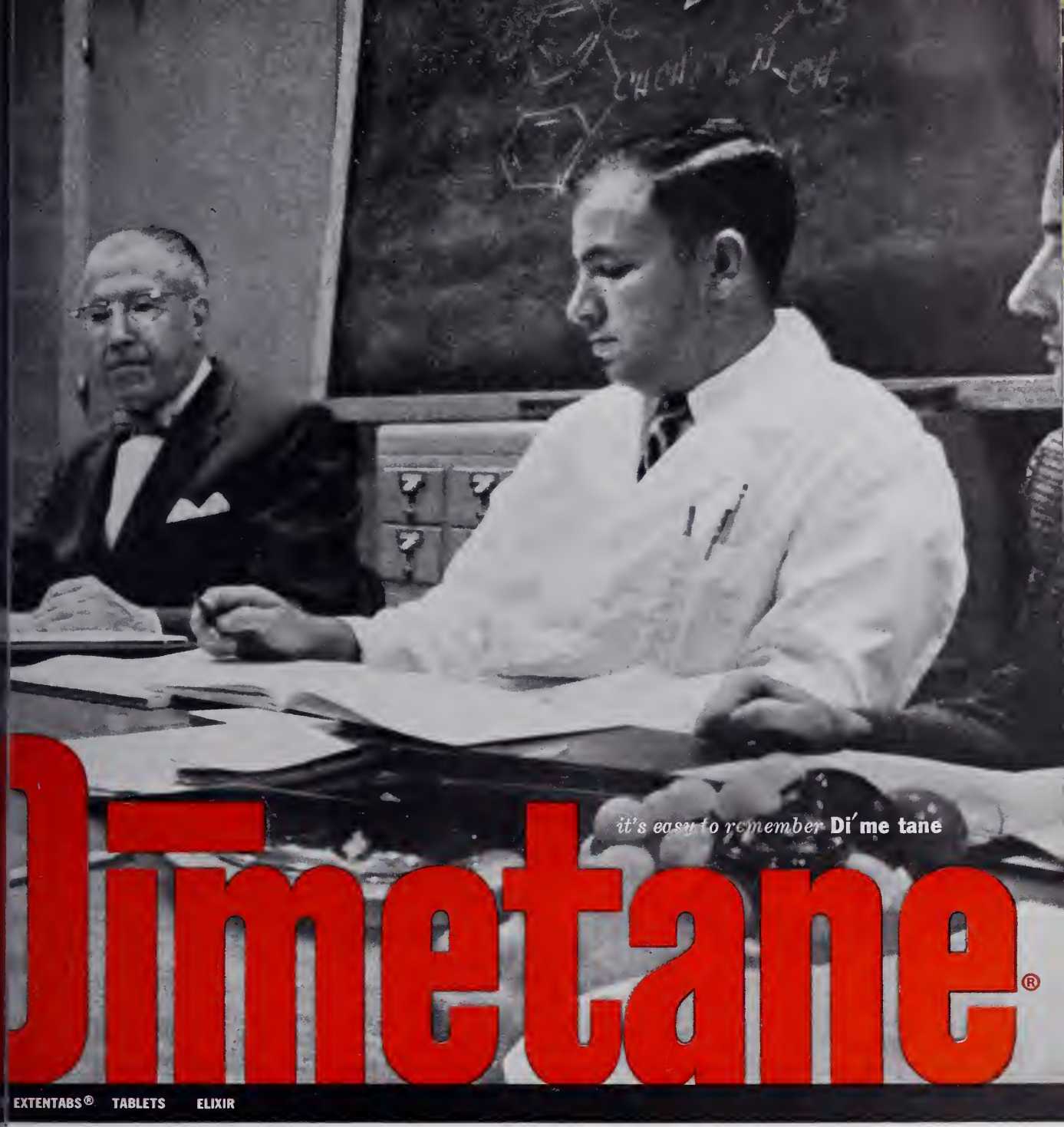
why Dimetane is the best reason yet for you to re-exami the antihistamine you're now using » *Milligram for milligr*

DIMETANE potency is unexcelled. DIMETANE has a therapeutic index unrivaled by other antihistamine—a relative safety unexceeded by any other antihistamine. DIMETANE, even in very low dosage, has been effective when other antihistamines have failed. Drowsiness, other side effects have been at the very minimum.

» unexcelled antihistaminic action

Diagnosis	No. of Patients	Response				Side Effects
		Excellent	Good	Fair	Negative	
Allergic rhinitis and vasomotor rhinitis	30	14	9	5	2	Slight Drowsi
Urticaria and angioneurotic edema	3	1	1	1		Dizzy (1)
Allergic dermatitis	2		1	1		Slight Drowsi
Bronchial asthma	1		1			
Pruritus	1		1			
Total	37	15	13	7	2	Drowsiness (5 Dizzy (1)

From the preliminary **Dimetane Extentabs** studies of three investigators. Further clinical investigations will be reported as co



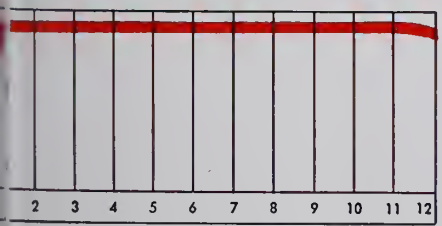
it's easy to remember **Di´me tane**

Dimetane®

EXTENTABS® TABLETS ELIXIR

DIMETANE IS PARABROMDYLAMINE MALEATE – EXTENTABS 12 MG., TABLETS 4 MG., ELIXIR 2 MG. PER 5 CC.

blanket of allergic protection, covering 10-12 urs—with just one Dīmetane Extentab » *DIMETANE Extentabs protect patient for 10-12 hours on one tablet.*



Periods of stress can be easily handled with supplementary DIMETANE Tablets or Elixir to obtain maximum coverage.

Dosage:

Adults—One or two 4-mg. tabs. or two to four teaspoonfuls Elixir, three or four times daily. One Extentab q.8-12 h. or twice daily.

Children over 6—One tab. or two teaspoonfuls Elixir t.i.d. or q.i.d., or one Extentab q.12h.

Children 3-6—½ tab. or one teaspoonful Elixir t.i.d.

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How to win friends ...



The Best Tasting Aspirin you can prescribe.

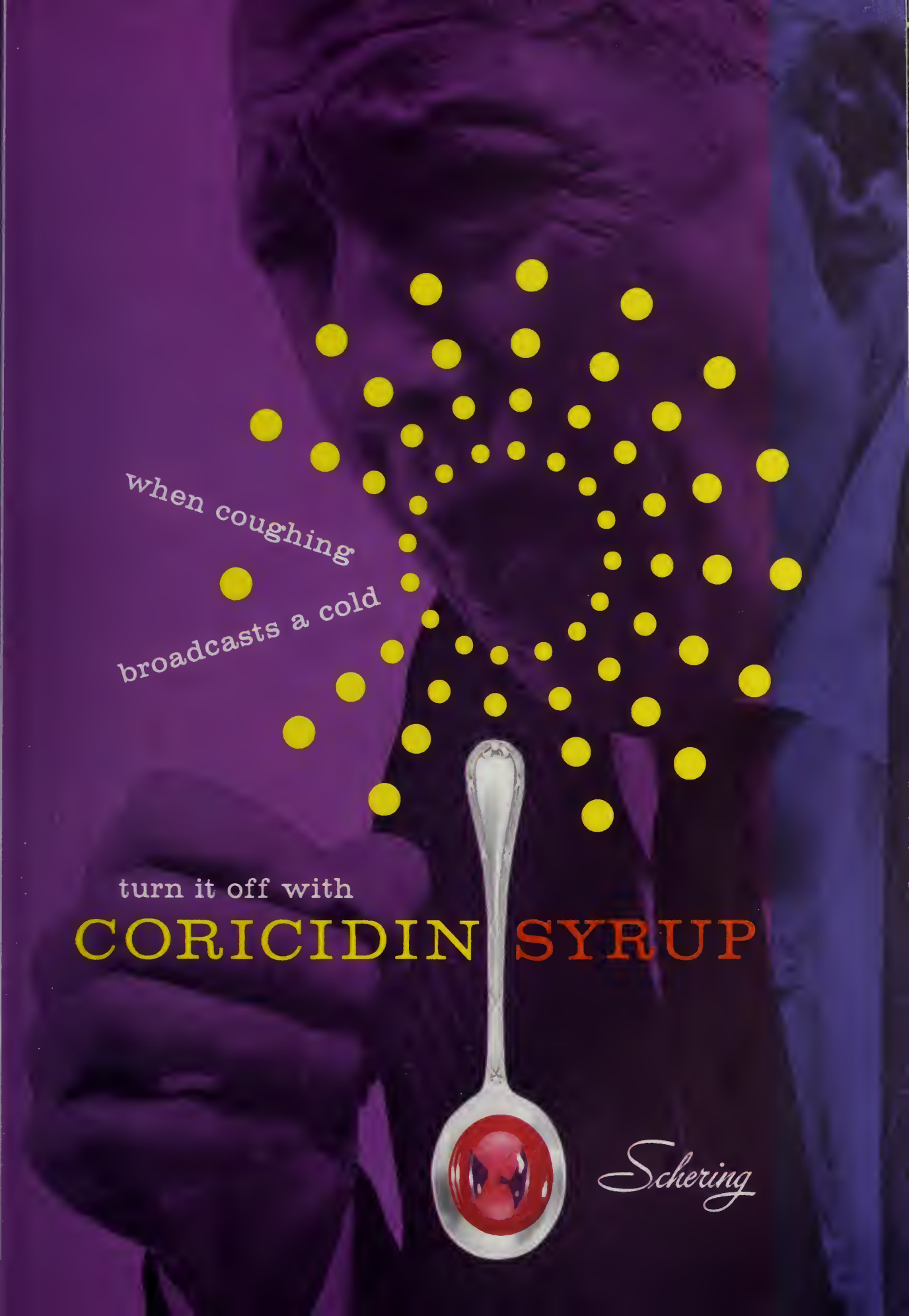
The Flavor Remains Stable down to the last tablet.

25¢ Bottle of 48 tablets (1¼ grs. each).

We will be pleased to send samples on request.

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when coughing
broadcasts a cold
turn it off with
CORICIDIN SYRUP
Schering



clears the air

silences cough...

CORICIDIN SYRUP

Cough associated with a cold may not be innocuous. It can be dry and unproductive—aggravated by pollens, dust and tobacco smoke—persist out of habit—lead to distressing secondary symptoms.

To control both cough and cold, CORICIDIN Syrup provides sedative, expectorant, antiallergic and anticold agents—a comprehensive treatment approach.

Each teaspoonful (5 cc.) of palatable CORICIDIN Syrup⊙ contains:

Dihydrocodeinone bitartrate	1.67 mg.
CHLOR-TRIMETON® Maleate (chlorprophenpyridamine maleate)	2 mg.
Sodium salicylate	0.225 Gm.
Sodium citrate	0.12 Gm.
Caffeine	30 mg.
Glyceryl guaiacolate	0.03 Gm.

⊙Exempt narcotic. CORICIDIN,® brand of analgesic-antipyretic.

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If
Monilial
overgrowth
is a factor

ACHROSTATIN*V

Tetracycline (phosphate-buffered) and Nystatin

Combines ACHROMYCIN V with NYSTATIN

ACHROSTATIN V combines ACHROMYCIN† V . . . the new rapid-acting oral form of ACHROMYCIN† Tetracycline . . . noted for its outstanding effectiveness against more than 50 different infections . . . and NYSTATIN . . . the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients who are prone to monilial overgrowth during a protracted course of antibiotic treatment.

supplied:
ACHROSTATIN V CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin.

dosage:
Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

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in bronchial asthma and respiratory allergies



specify the buffered "predni-steroids"
to minimize gastric distress

combined steroid-antacid therapy . . .

Co-Deltra®
(Prednisone buffered)

Co-Hydeltra®
(Prednisolone buffered)

'Co-Deltra' or 'Co-Hydeltra' provides all the benefits of "predni-steroid" therapy and minimizes the likelihood of gastric distress which might otherwise impede therapy. They provide easier breathing—and smoother control—in bronchial asthma or stubborn respiratory allergies.

SUPPLIED: Multiple Compressed Tablets 'Co-Deltra' or 'Co-Hydeltra' in bottles of 30, 100, and 500.

Multiple Compressed Tablets



2.5 mg. or 5.0 mg. of prednisone or prednisolone, plus 300 mg. of dried aluminum hydroxide gel and 50 mg. of magnesium trisilicate.

'CO-DELTRA' and 'CO-HYDELTRA' are registered trademarks of MERCK & CO., INC.

MSD

MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC.
PHILADELPHIA 1, PA.

what are the differences among tranquilizers ?

Reviews of ataraxic therapy commonly divide the available tranquilizers into three main categories: the rauwolfia derivatives; the phenothiazine compounds; and a smaller group of agents which are lumped together for the sake of convenience rather than because of any common characteristic.

As a result, one significant fact is often overlooked: ATARAX (hydroxyzine) does not fit into any of these three categories. Indeed, by any logical criterion, it belongs in a class by itself.

1. ATARAX is chemically unique. It differs from any other tranquilizer now available, not in minor molecular rearrangements but in basic structure.

2. ATARAX is therapeutically different. ATARAX is characterized by unique cerebral specificity. On ATARAX, the patient retains full consciousness of incoming stimuli —their nature and their intensity—but his reactions are those of a well-adjusted person. He is neither depressed nor torpid, and his reflexes remain normal, as does cortical function. Thus ATARAX induces a calming peace-of-mind effect without disturbing mental alertness.

3. ATARAX is, perhaps, the safest ataraxic known. It is outstandingly well tolerated. Every clinical report confirms this fact.* After more than 150 million doses, there has not been a single report of toxicity, blood dyscrasia, parkinsonian effect, liver damage, or habituation.

4. ATARAX is unusually flexible. This lack of toxicity makes it possible to adjust ATARAX dosage to virtually any patient need. In the lowest range, children respond well to 10 mg. or one teaspoonful of syrup t.i.d., while anxious adults usually are treated with 25 mg. q.i.d. Yet, if needed, the dosage can safely be raised: in more severe disturbances, dosages up to 1,000 mg. daily have been administered without adverse reactions.

In reviewing your own experience with tranquilizers, remember that ATARAX is in a class by itself; that you cannot judge it by your results with any other drug. To get to know ATARAX at first hand, prescribe it for the next four weeks whenever a tranquilizer is indicated. See for yourself how it compares.

*Documentation on request

PEACE OF MIND ATARAX®
(BRAND OF HYDROXYZINE)

ATARAX
in any hyperemotive state

for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

M. A. Seidel M.D.
Medical Director

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both–
orally for
dependable prophyla
sublingually for
fast relief

NEW ISUPREL®

FOR CHEERFUL INSTEAD OF FEARFUL PATIEN



TRANOL® TABLETS

HMATIC—

eerful instead of fearful

suprel-Franol tablets bring
he-clock relief *plus* emergency
gainst sudden attack. Anxiety
hen patients know they'll get
n 60 seconds — relief that con-
for four hours or more.

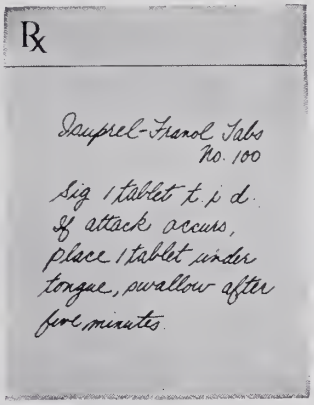
HCl (10 mg. for adults, 5 mg.
dren), the most potent broncho-
known, makes up the outer
. In a sudden attack, the patient
e tablet under his tongue. Relief
n 60 seconds. A unique feature
flavor-timer." As the Isuprel is
d a lemon flavor appears. When
pears—about five minutes later
patient swallows the tablet.

excelled combination for pro-
bronchodilatation makes up the
-Franol core: benzylephedrine
2 mg.), Luminal® (8 mg.) and
ylline (130 mg.). Swallowed, the
works for four hours or more.

-Franol tablets are "... effec-
controlling over 80% of
s with mild to moderate
s of asthma."[1]

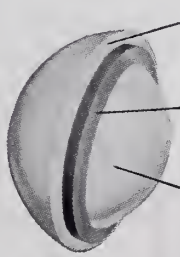
er, J. L., and DeRisio,
ahey Clin. Bull. 10:45,
., 1956.

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New York 18, N. Y.



ISUPREL-FRANOL tablets (Isuprel HCl 10 mg.) for adults;
ISUPREL-FRANOL Mild tablets (Isuprel HCl 5 mg.) for children:
One tablet every three or four hours taken *orally* for continuous control of bronchospasm in chronic asthma. One tablet taken *sublingually* for sudden attack. "Flavor-timer" signals when patient should swallow.
Bottles of 100 tablets.

"Flavor-timer" signals patients when to swallow tablets



ISUPREL
Immediate effect sublingually—for emergency use

LEMON "FLAVOR-TIMER"
Disappearance of flavor is the signal to swallow

FRANOL { Theophylline / Luminal / Benzylephedrine
Sustained action—reduces frequency and intensity of attacks

(BRAND OF ISOPROTERENOL), FRANOL AND LUMINAL (BRAND OF PHENOBARBITAL), TRADEMARKS REG. U. S. PAT. OFF.

STOP respiratory congestion orally

relief in minutes..lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

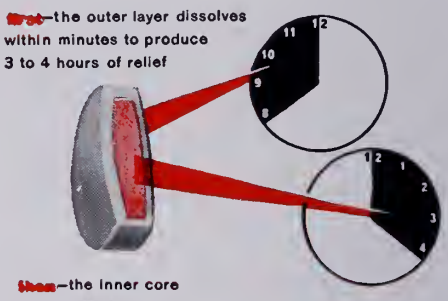
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: 1 tablet in the morning, afternoon, and in the evening if needed.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours— provides "around-the-clock" freedom from congestion on just three tablets a day



Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

Triaminic® "timed-release" tablets

STOP *running noses... and open stuffed noses orally*

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Established 1887 **Capacity 200 beds**

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WHEN YOU TREAT INFECTIONS IN PATIENTS SUCH AS THESE

- debilitated
- elderly
- diabetics
- infants, especially prematures
- those on corticoids
- those who developed moniliasis on previous broad-spectrum therapy
- those on prolonged and/or high antibiotic dosage
- women—especially if pregnant or diabetic

the best broad-spectrum antibiotic to use is

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin) — Sumycin plus Mycostatin

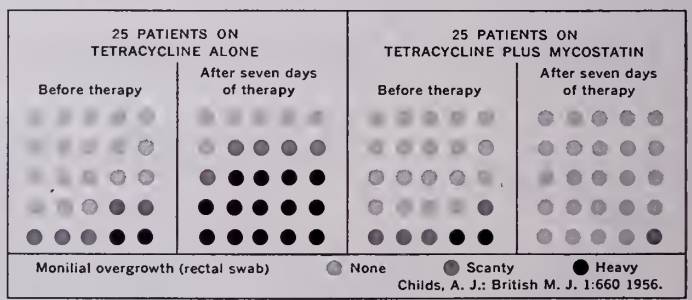
for practical purposes, Mysteclin-V is sodium-free

for "built-in" safety, Mysteclin-V combines:

1. Tetracycline phosphate complex (Sumycin) for superior initial tetracycline blood levels, assuring fast transport of adequate tetracycline to the infection site.

2. Mycostatin—the first safe antifungal antibiotic—for its specific antimonilial activity. Mycostatin protects many patients (see above) who are particularly prone to monilial complications when on broad-spectrum therapy.

MYSTECLIN-V PREVENTS MONILIAL OVERGROWTH



Childs, A. J.: British M. J. 1:660 1956.

Capsules (250 mg./250,000 u.), bottles of 16 and 100. *Half-Strength Capsules* (125 mg./125,000 u.), bottles of 16 and 100. *Suspension* (125 mg./125,000 u.), 2 oz. bottles. *Pediatric Drops* (100 mg./100,000 u.), 10 cc. dropper bottles.

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Squibb Quality—the Priceless Ingredient

"MYSTECLIN,"® "MYCOSTATIN"® AND "SUMYCIN" ARE SQUIBB TRADEMARKS

Relieve moderate or severe pain

Reduce fever

Alleviate the general malaise of upper respiratory infections

'TABLOID'

'EMPIRIN' COMPOUND®

WITH

CODEINE PHOSPHATE*

maximum codeine analgesia/optimum antipyretic action

*Subject to Federal Narcotic Regulations

Symbols OF PROVEN PAIN RELIEF



gr. 1



gr. ½



gr. ¼



gr. ⅛

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Formulas for dependable relief...

...from moderate to severe pain complicated by tension, anxiety and restlessness.

'CODEMPIRAL'® NO. 3*



Codeine Phosphate . . . . . gr. ½
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . gr. 3½

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Codeine Phosphate . . . . . gr. ½
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

...from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

'TABLOID'

'EMPIRIN' COMPOUND®



Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½
Caffeine . . . . . gr. ½

...from mild pain complicated by tension and restlessness.

'EMPIRAL'®



Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

*Subject to Federal Narcotic Regulations

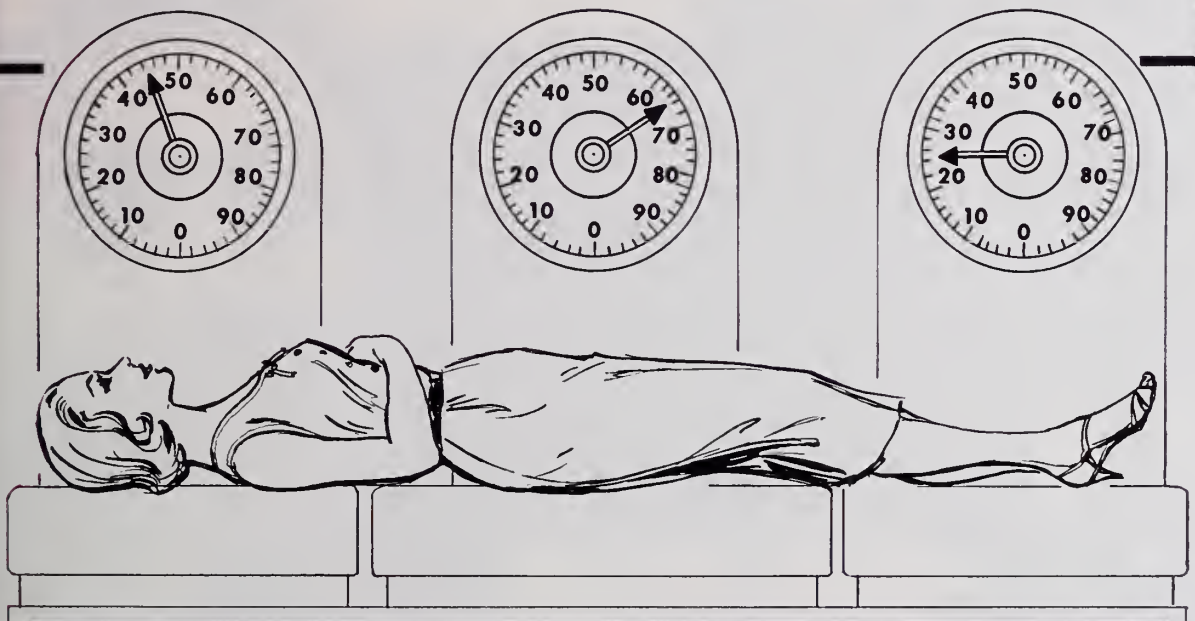
BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

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your **BACK'S** *best friend for the* **REST** *of your life*

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Across from Post Office

"...especially suitable for out-patient and office use."†



†Ayd, F. J., Jr.: The Treatment of Ambulatory and Hospitalized Psychiatric Patients with Trilafon, presented at Ann. Meet., Am. Psychiat. Assoc., Chicago, Ill., May 13-17, 1957.

Trilafon*

(pronounced Trĭll'-ah-fon) perphenazine

the full-range tranquilizer

EXCEPTIONAL THERAPEUTIC RANGE

. . . dosage range adaptable for tension and anxiety states, ambulatory psychoneurotics, agitated hospitalized psychotics

EXCEPTIONAL POTENCY

- At least five times more potent than earlier phenothiazines

EXCEPTIONAL ANTIEMETIC RANGE

- From the mildest to the severest nausea and vomiting due to many causes

ADEQUATE SAFETY IN RECOMMENDED DOSAGE RANGES

- Jaundice attributable to the drug alone not reported
- Unusual freedom from significant hypotension
- No agranulocytosis observed
- Mental acuity apparently not dulled

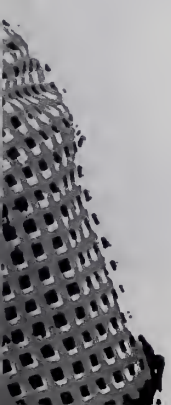
TRILAFON—grey tablets of 2 mg. (black seal), 4 mg. (green seal), 8 mg. (blue seal), bottles of 50 and 500; 16 mg. (red seal), for hospital use, bottle of 500.

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- consistent in effects as few tranquilizers are

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Dartal is useful whenever the physician wants to ameliorate psychic agitation, whether it is basic or secondary to a systemic condition.

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Woodbury	P. M. Cmeyla, Sioux City	J. P. Tiedeman, Sioux City	D. B. Blume, Sioux City
Worth	M. P. Allison, Northwood	W. G. McAllister, Manly	C. T. Bergen, Northwood
Wright	C. A. Aageson, Dows	R. F. McCool, Clarion	S. P. Leinbach, Belmond



The Month in Washington

Washington, D. C.—Eleven years ago, in passing the National Employment Act of 1946, Congress provided for two organizations whose sole function is to promote maximum employment, maximum production and maximum purchasing power. One is Congress' own Joint Economic Committee; the other, the President's Council of Economic Advisers.

The President's Council constantly studies all forces—social as well as financial—that affect employment and production, and before each January 20 makes its report to the President, who in turn utilizes it in drafting his annual economic report to Congress.

At the same time the Congressional Joint Economic Committee is making its own separate studies, holding hearings and preparing a background of information against which to judge the President's economic recommendations when they come before it. The Congressional Committee, however, is wholly advisory; it does not itself draft legislation, but makes public its annual report before each March.

Although this Committee is denied legislative power, its influence often directs the course of legislation. For example, a strong, one-page report from this Committee is credited with keeping Congress in session after the start of the Korean war and thus preventng a scheduled decrease in taxes.

When it calls in witnesses, the Joint Committee attempts to obtain a broad cross-section of opinion —the liberal along with the conservative. For this reason, recent hearings under sponsorship of the Joint Committee attracted more than casual interest. They brought together conflicting general philosophies and controversial opinions on specific issues. In the health-welfare fields, the following were some of the views.

The question of hospitalization for the retired aged through the social security mechanism was debated pro and con by the panelists. Two views:

Prof. Wilbur Cohen, University of Michigan—This former Social Security official maintains that the system can stand the drain of hospitalization for the aged. It could be done for one half of one per cent of taxable income, he argued, and

when anxiety and tension "erupts" in the G. I. tract...

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PATHIBAMATE*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of gastric ulcer — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

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Cook County Graduate School of Medicine

INTENSIVE POSTGRADUATE COURSES

Starting Dates—Spring, 1958

SURGERY—Surgical Technic, Two Weeks, February 24, March 10, March 24
Surgery of Colon and Rectum, One Week, March 3
Basic Principles in General Surgery, Two Weeks, April 7
Treatment of Varicose Veins, March 3, April 7
Gallbladder Surgery, Three Days, March 31
Surgery of Hernia, Three Days, April 3
General Surgery, Two Weeks, May 5; One Week, February 10
Fractures & Traumatic Surgery, Two Weeks, March 17
Breast & Thyroid Surgery, One Week, May 5

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, March 17
Vaginal Approach to Pelvic Surgery, One Week, March 10
General & Surgical Obstetrics, Two Weeks, February 24

MEDICINE—General Review Course, Two Weeks, May 12
Electrocardiography & Heart Disease, Two Weeks, March 17
Gastroscopy & Gastroenterology, Two Weeks, March 3
Hematology, One Week, June 2
Gastroenterology, Two Weeks, April 14

PEDIATRICS—Two-Week Intensive Course, April 21

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, March 3
Clinical Uses of Radioisotopes, Two Weeks, May 5

UROLOGY—Two-Week Intensive Course, April 14
Cystoscopy, Ten-Day Practical Course, by appointment

Teaching Faculty—Attending Staff of Cook Co. Hospital

Address: Registrar, 707 South Wood St., Chicago 12, Ill.

he would raise the latter to the first $6,600 of income instead of the present $4,200.

W. Glenn Campbell, American Enterprise Association—Congress should give the medical profession and the insurance industry a chance to work out this problem through traditional methods, rather than institute a costly compulsory system with all its attendant damage to the effective practice of Medicine.

Two other panelists expressed parallel views on the broader and philosophical aspects of health and welfare:

Secretary Folsom of HEW—The burdens of disease, disability, ignorance and insecurity cannot be escaped by under-investment in health, education and welfare. Such an under-investment would have a costly effect on private charities, budgets of governments, efficiency of industry and the purchasing powers of consumers.

Prof. Clarence D. Long, Johns Hopkins University—An expansion of social welfare programs will have a very great stimulating effect on the economy, provided we play down those programs that involve mere charity and emphasize those that help people to help themselves.

On the day of the hearing on health, education and welfare, the panelists agreed that no crash programs in education were called for, despite the scientific manpower shortages. Other comments on education:

Prof. Paul J. Strayer, Princeton University—Either federal aid will be forthcoming on terms that can be acceptable to the states or we shall suffer a general deterioration in the quality of education.

President Howard R. Bowen, Grinnell College—Federal aid should not be granted directly to colleges and universities, but through intermediary non-profit corporations controlled by boards of trustees made up of distinguished citizens.

NOTES

A possible indication of legislation in 1958 comes from a December tour of southern medical schools by members of the House Interstate and Foreign Commerce Committee's health subcommittee. Among other things, they were concerned with the schools' need for more laboratories and classrooms.

* * *

The Department of Health, Education, and Welfare has started a 12-year study on the activities of a group of 3,000 newly-retired men and women.

* * *

Community-wide chest X-ray campaigns to detect tuberculosis, long a popular public health device, now are in disfavor with U. S. Public Health Service. PHS recommends instead that tuberculin skin tests be used generally with chest X-rays

(Continued on page xlv)

new

"flavor-timed"

dual-action

coronary vasodilator

Dilcoron

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ORAL

for **Sustained** *coronary vasodilation and protection against anginal attack*

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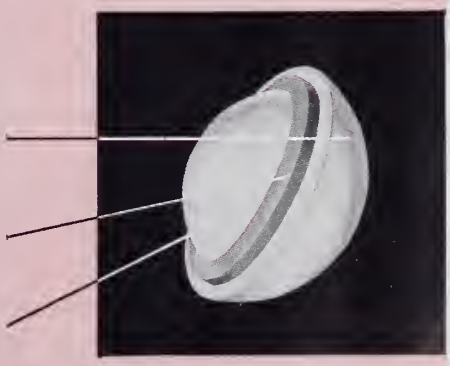
for **Immediate** *relief from anginal pain*

DILCORON contains two highly efficient vasodilators in a unique core-and-jacket tablet.

Glyceryl trinitrate (nitroglycerin)—0.4 mg. (1/150 grain) is in the outer jacket—held under the tongue until the citrus flavor disappears; provides rapid relief in acute or anticipated attack.

The middle layer of the tablet is the citrus "flavor-timer."

Pentaerythritol tetranitrate—15 mg. (1/4 grain) is in the inner core—swallowed for slow enteric absorption and lasting protection.

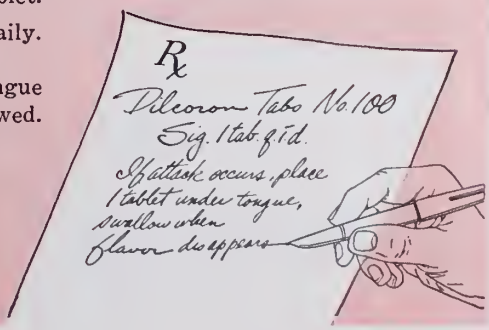


Bottles of 100.

For continuing prophylaxis patients may swallow the entire Dilcoron tablet.

Average prophylactic dose: 1 tablet four times daily.

Therapeutic dose: 1 tablet held under the tongue until citrus flavor disappears, then swallowed.



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Personals



Dr. J. A. Ledogar, a medical graduate of New York University who has done graduate work in surgery and obstetrics and gynecology at Bellevue and at Johns Hopkins, opened an office in Webster City late in November.

Dr. Karl A. Catlin, medical director of the Clarinda Mental Health Institute, recently announced the appointment of **Dr. Edwin C. Niver**, a Cleveland psychiatrist, as head of his hospital's teaching and research program.

Dr. Frank Jacobson, who formerly served the Fairview state school for the retarded in Oregon, has joined the staff of the Glenwood State School as medical director and staff psychologist.

Drs. J. W. Chambers, O. A. Elliott, A. M. Smythe and **W. D. Abbott**, of Des Moines, compose the board of medical advisors for a new laymen's organization which will raise funds for combatting myasthenia gravis. The sponsoring group is the Soroptomists, a Des Moines business women's club. It is reported that there are about six cases of myasthenia gravis in Des Moines, and the number in the entire state is thought to exceed 100.

The speaker at a joint meeting of the Calhoun County Medical Society and Bar Association, in Rockwell City on November 21, was **Dr. H. C. Merillat**, a Des Moines psychiatrist.

Dr. Jean Arnold, who has been a staff member at the State Psychopathic Hospital for almost ten years, opened an office for the private practice of psychiatry at 412 Tenth Avenue, Coralville, in November. She received her M.D. degree from the Medical College of Alabama, and joined the medical faculty at S.U.I. at the completion of her psychiatric residency in Iowa City. She has been an assistant professor of psychiatry since 1953.

The address given by **Dr. Julian Bruner**, of Des Moines, at the San Francisco meeting of the American Society for Plastic and Reconstructive Surgery, in November, was synopsized in NEWSWEEK. It concerned repair of hands injured by mechanical cornpickers.

Chronic hoarseness warrants full medical investigation, on the chance that it is an early symptom of malignancy of the larynx, **Dr. James B. Costen**, professor of otolaryngology at George Washington

Doctor . . .

HERE IS WHAT YOU WANT

We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

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new

In edema

'DIURIL'

CHLOROTHIAZIDE

an orally effective nonmercurial agent with diuretic activity equivalent to that of the parenteral mercurials

1 Gm. of 'DIURIL' orally is approximately equivalent to 1 cc. of mercurial I.M.[1]

FOR

initiation of diuresis—prolonged maintenance[2] of diuresis

balanced excretion of sodium and chloride

Even in the presence of severe renal, cardiac or hepatic damage—

Any indication for diuresis is an indication for 'DIURIL':

1. Congestive heart failure of all degrees of severity
2. Premenstrual syndrome (edema)
3. Edema and toxemia of pregnancy
4. Renal edema—nephrosis; nephritis
5. Cirrhosis with ascites
6. Drug-induced edema

May be of value to relieve fluid retention complicating obesity

MSD
MERCK SHARP & DOHME

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In hypertension

'DIURIL'

CHLOROTHIAZIDE

Provides basic therapy to improve and simplify the management of hypertension

enhances markedly the effects of the antihypertensive agents

reduces dosages of other agents below the level of serious side effects

smoothes out blood pressure fluctuations[1,2]

'DIURIL', added to the regimen is often effective in controlling the blood pressure of even highly resistant cases of hypertension

For smooth, sustained antihypertensive effect, the majority of hypertensive patients can be controlled better when 'DIURIL' is combined with significantly reduced amounts of antihypertensive agents

Recommended dosage range: in hypertension—one 250 mg. tablet 'DIURIL' b.i.d. to one 500 mg. tablet 'DIURIL' t.i.d.

Supplied 250 mg. and 500 mg. scored tablets 'DIURIL' (chlorothiazide), bottles of 100 and 1000.

References

1. Hollander, William, and Wilkins, Robert W: Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension, Boston Medical Quarterly 8:69 (Sept.) 1957

2. Freis, Edward D., and Wilson, Ilse M: Potentiating Effect of Chlorothiazide (DIURIL) in Combination with Antihypertensive Agents, a Preliminary Report; Med. Annals of the District of Columbia 26:468 (Sept.) 1957.

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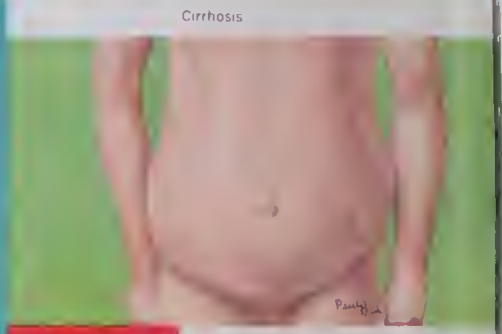
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a major breakthrough in the management of two major medical problems

MERCK SHARP & DOHME



Edema of Pregnancy



Cirrhosis



Cardiac Edema

Nephrosis



Obesity with Fluid Retention

RECOMMENDED DOSAGE RANGE: in edema—one 500 mg tablet 'DIURIL' to two 500 mg. tablets 'DIURIL' once or twice a day.

SUPPLIED: 250 mg. and 500 mg. scored tablets of 'DIURIL' (chlorothiazide), bottles of 100 and 1000.

REFERENCES:

1. Moyer, J.H., Ford, R.V., and Spurr, C.L.: Pharmacodynamics of Chlorothiazide (Diuril), An Orally Effective Non-Mercurial Diuretic Agent, Proc. Soc. Exper Biol and Med. *95*:529 (July) 1957

2. Ford, Ralph V., Handley, Carroll, Moyer, John H., and Spurr, Charles L. Chlorothiazide, An Orally Effective Non-Mercurial Diuretic Agent, Med. Rec. and Ann. *51*:376 (April) 1957

'DIURIL'

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University, told a meeting of the Iowa-Illinois Central District Medical Society, in Davenport on November 20.

A new office building in Manly has recently been occupied by **Dr. William G. McAllister** and by **Dr. H. Fred Herzog**, a dentist.

Dr. George G. Young, associate medical director of the Central Life Assurance Company, Des Moines, will shortly market a 12-inch model skeleton for use in schools and doctor's offices. He concedes that it lacks sufficient detail for use in medical school classes, but thinks it will suffice for pre-med work and art classes. A plastic originated by the Phillips Petroleum Company will be used, Plastics Masters, Inc., of Chicago, will produce it, and it will be available after February 1. Like the boat and plane models which Dr. Young has previously devised, as a hobby, the skeleton will be sold as a kit, and the purchaser will have the task of assembling it.

After about a year as head of the like organization in Nebraska, **Mr. John Herman** has resumed the directorship of the Iowa Heart Association, in Des Moines. **Mr. Lloyd Wagnon**, the man with whom Mr. Herman exchanged jobs when he went to Omaha, has now taken the directorship of "development, research and services" at the University of Pittsburgh. In his new job, Mr. Wagnon will seek to devise new fund-raising technics and improve the efficiency of old ones.

Three horses owned by **Dr. John H. Tait**, of Des Moines, won championships in the Iowa Saddle Horse Association's competition on November 11.

Dr. Walter F. Giegerich, of Alantic, recently was elected to membership by the American College of Gastroenterology.

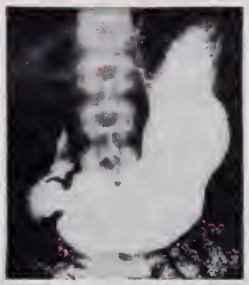
Dr. Robert W. Burke, a resident in surgery at University and Veterans Hospitals, Iowa City, is substituting for **Dr. J. I. Limburg**, at Jefferson. Dr. Limburg was injured in an automobile accident on October 6.

Dr. Richard Widman, a 1954 graduate of the S.U.I. College of Medicine who interned at a hospital in Sacramento, has joined the staff of the McVay Memorial Hospital, in Lake City. For the past two years he has been in Army service.

Dr. Charles F. Starr, of Mason City, a Life Mem-

when anxiety and tension "erupts" in the G. I. tract...

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ber of the Iowa State Medical Society who at 80 years of age is still hard at work, was the subject of the "Our Lively Elders" feature in the November 10 issue of the DES MOINES SUNDAY REGISTER.

On the night of November 5, **Dr. Franklin C. Perkins**, of Hedrick, received a back injury, cuts and bruises when his car went off a secondary road near Agency. The road was an unfamiliar one, and when Dr. Perkins came over the brow of a hill, he confronted a sharp turn and was traveling too fast to negotiate it satisfactorily. He had to walk a quarter-mile in search of help, and he was subsequently hospitalized briefly at Ottumwa.

The November 17 issue of the DUBUQUE TELEGRAPH contained a fine photograph and an interesting account of **Dr. Henry G. Langworthy**, a Dubuque Life Member of the Iowa State Medical Society. Though he retired from active practice 12 years ago and suffers from a painful case of spinal arthritis, Dr. Langworthy maintains an office and works three hours each day, chiefly on projects of the Interstate Postgraduate Medical Association, an organization of which he is treasurer. Among other things, the paper mentioned that Dr. Langworthy's maternal grandfather was the founder of the H. B. Glover Co., a garment-making firm in Dubuque about which the hit musical comedy "The Pajama Game" was written. The firm went out of business in 1955.

Dr. E. B. Floersch, of Council Bluffs, is the new chairman of the Pottawattamie County Heart Council.

At the November 14 meeting of the Linn County Medical Society, in the Sheraton-Montrose Hotel in Cedar Rapids, **Dr. Carlton B. Chapman,** professor of medicine at the University of Texas, spoke on "The Functional Diagnosis of Mitral Stenosis and Mitral Insufficiency; Recent Advances in the Evaluation of Patients for Mitral Surgery."

At a joint meeting of the Medical and Dental Societies of Mahaska County, held at Oskaloosa during November, **Dr. James E. Kelsey,** a Des Moines internist, spoke on "History and Philosophies of Christian Science, Chiropractics and Osteopathics," and **Dr. Daniel E. Waite,** clinical head of the Department of Oral Surgery at the S.U.I. College of Dentistry, showed slides and gave a running commentary on "The Temperomandibular Joint." The total attendance at the meeting was 32.

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Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits

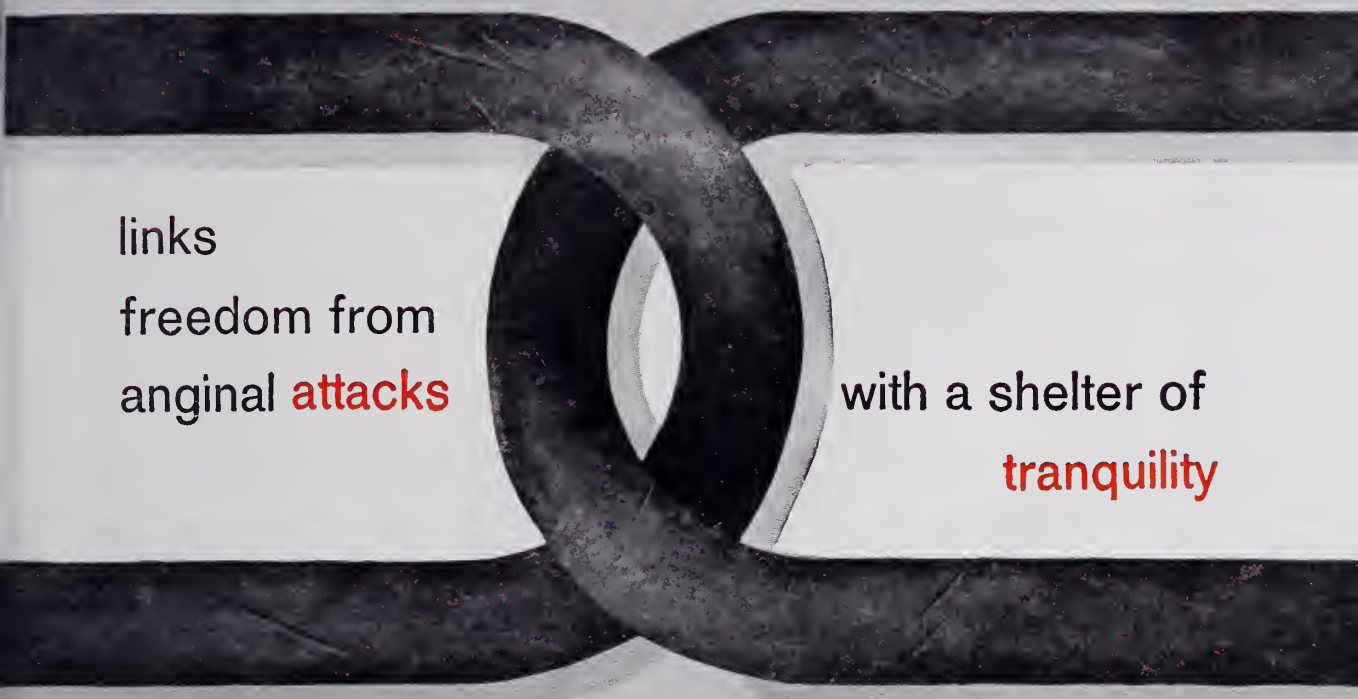
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"Cardiac patients who show significant manifestations of anxiety should receive ataractic treatment as part of the therapeutic approach to the cardiac problem."[1]

1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. *8*:1075 (July) 1957.

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TETREX Intramuscular '250' can be reconstituted for injection by adding 1.6 cc. of sterile distilled water or normal saline, to make a total injection volume of 2.0 cc. When the entire 250 mg. are to be injected, and minimal volume is desired, as little as 1.0 cc. of diluent need be used. (Full instructions for administration and dosage for adults and children, accompany packaged vial.)

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TETREX (tetracycline phosphate complex) (tetracycline HCl activity).....**250 mg.**

Xylocaine* hydrochloride ..... **40 mg.**

plus ascorbic acid 300 mg. and magnesium chloride 46 mg. as buffering agents.

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SUPPLY: Single-dose vials containing TETREX — tetracycline phosphate complex — each equivalent to 250 mg. tetracycline HCl activity. Also available in 100-mg. single-dose vials.

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Dr. J. O. Cromwell, who has been director of the state mental hospital at Independence for the past year, is to begin serving, in addition, as acting director of state mental institutions. According to the announced plan, he will move to Des Moines and begin devoting full time to the overall supervisory job as soon as someone has been hired to replace him at Independence, but no later than January, 1959.

At the December 18 meeting of the Polk County Medical Society, held in the Iowa-Methodist Hospital, **Drs. James E. Kelsey, George G. Caudill, Rutledge C. Schropp** and **John W. Green,** of Des Moines, composed a panel that discussed "Antibiotics and Your Practice." **Dr. Van C. Robinson,** of Des Moines, was the moderator. For their December meeting each year, the members of the Polk County Society are guests of the staffs of the five Des Moines medical hospitals, in rotation.

Dr. George F. Lull, formerly secretary-general manager and now assistant to the president of the AMA, will address the January 7 meeting of the Scott County Medical Society, at the Outing Club, in Davenport. He will discuss the problems that currently face Medicine at the national level. Physicians from outside the county will be welcome.

May 1 is to be the date for the 1958 meeting of the Iowa-Nebraska Medical Symposium, the place will be the Hotel Chieftain, Council Bluffs, and the topic will be "Diseases of the Chest." Physicians throughout the two states are cordially invited to attend.

At joint meetings of the Medical Society and Bar Association of Des Moines County, held at the Burlington Golf Club on December 10, **Drs. Frank G. Ober** and **F. Donald Winter,** and attorneys **Cray** and **Hirsch** made up a panel for discussion of problems common to Law and Medicine.

Dr. Hiram B. Henry, of Des Moines, discontinued medical practice on November 30, and announced his intention of moving to California shortly after the first of the year.

At its annual election of officers in Quincy on November 24, the Mississippi Valley Medical Society chose **Dr. George C. McGinnis,** of Fort Madison, as its vice-president for Iowa. As was noted in last month's issue of the JOURNAL, **Dr. Arthur F. Fritchen,** of Decorah, is the new president of that organization.

At the December 4 meeting of the Johnson County Medical Society, held at the Mayflower Hotel in Iowa City, **Dr. Edward N. Cook,** a Mayo



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*REFERENCE: J.A.M.A. 163: 359, 1957 (February 2

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Clinic urologist, spoke on "Urinary Tract Infections."

Dr. Lewis J. Dimsdale, of Sioux City, was made a fellow of the American College of Physicians at the group's meeting in Chicago on November 9 and 10.

Dr. Austin E. Schill, of Des Moines, addressed the Iowa Surety and Casualty Claims Association on November 11. His topic was "Trauma During Pregnancy."

Dr. Louis T. Palumbo, chief of surgery at the Des Moines V-A Hospital, will address the Wapello County Medical Society, January 7, on "A New Surgical Approach for Angina Pectoris and Vascular Insufficiency of the Upper Extremity." The meeting will take place at the Ottumwa Hospital, and will be preceded by dinner.

Dr. Edward J. Vosika, who practiced in Iowa until early in 1957, but since then has been located at Frankfort, Illinois, arrived in Washington, Iowa, during December, to take over the practice of the late **Dr. Richard Owen.**

At a meeting on December 9, the Washington County Medical Society elected officers for the new year. **Dr. C. A. Boice** replaced **Dr. C. W. Beckman** as president, and **Dr. T. M. Mast** was elected vice-president of the Medical Society, and **Dr. G. J. Nemmers** replaced **Dr. W. S. Kyle** as Society secretary. **Dr. D. G. Sattler** was chosen as the Society's delegate to the Iowa State Medical Society.

Dr. Stephen C. Ware, of Iowa City, told the city council there, at a meeting held on December 9, that he wishes to resign as city health officer. He said that Iowa City should have a full-time health officer, and the proper man for the job would be a physician with training in public health. At the council's request, Dr. Ware agreed to serve until a successor can be found.

Pledges totaling $500,000 are being sought to help defray the cost of a $2,124,000 Jennie Edmundson Hospital, in Council Bluffs, and it is hoped that physicians will contribute $200,000 of that amount. The committee that is to solicit donations from doctors consists of **Dr. Jack V. Treynor**, chairman, and **Drs. Robert Collins, I. J. Hanssmann, Robert Joranson, Frederick E. Marsh, Sr., Arthur M. Pedersen** and **George H. Pester.**

Dr. Donald R. Schumacher, a 1955 graduate of the College of Medicine at S.U.I. who interned in a hospital in Flint, Michigan, and has been practicing for a year in Appleton, Wisconsin, returned


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This unusual safety record stands u matched in systemic antibiotic thera today. In addition, ERYTHROCIN is virt ally free of side effects.

Still, with all this notable freedom fro toxicity, ERYTHROCIN is effective in t majority of common bacterial respirato infections. Comes in two potencies (1 and 250 mg.), bottles of 25 and 1(The recommended adult dose is 250 mg. q.i.d.

Abbo

o Clinton, his home town, to open an office early n December. He earned a degree in engineering at Iowa State College and served three years in he Navy before starting to study medicine.

Dr. L. L. Long, who practiced most recently in Elk Point, South Dakota, but earlier had been located in Atlantic, Iowa, has taken over the practice of the late **Dr. Oliver L. Babcock**, at Albert City.

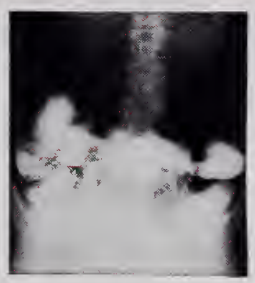
Dr. Stuart C. Cullen, head of the Division of Anesthesiology at the S.U.I. College of Medicine, is one of nine medical researchers and physicians who have been cited for outstanding contributions to medical progress and given awards by MODERN MEDICINE, a semi-monthly publication of which **Dr. Walter C. Alvarez** is editor-in-chief.

The citation said, in part, "Curare was introduced in the United States as a muscle relaxant through the investigations of Dr. Stuart C. Cullen whose research has continued to produce advances in the field. They include the use of vasoconstrictors intrathecally during spinal anesthesia, investigations of xenon and, more recently, fluothane, as anesthetic agents. Just as important has been Dr. Cullen's deep interest in teaching medical students and residents in the specialty. . . . Six of his trainees now head anesthesiology departments in medical schools. ANESTHESIA—A MANUAL FOR STUDENTS AND PHYSICIANS, a widely-used textbook, authored by Dr. Cullen, recently underwent its fifth revision."

On the eve of the three-day dedication program that marked the completion of the S.U.I. Medical Research Center, November 21-23, the National Institutes of Health made a grant of $81,132 to the University to aid in completing and equipping the building.

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ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
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ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
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Pyrilamine Maleate	15 mg.
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DEATHS

Dr. Charles Irwin Taylor, 86, a Life Member of the Iowa State Medical Society, died at his home in Pomeroy on November 15, following a stroke.

Dr. Gerritt Edward Vermeer, 75, of Sheldon, died at a Sheldon Hospital there on December 3, less than a week after suffering a heart attack.

Dr. Adolph Richard Frederickson, 69, of Lansing, died on December 3 at a hospital in LaCrosse, Wisconsin. He had practiced medicine in Allamakee County for 37 years.

Dr. Jacob N. Lande, 62, a Sioux City pediatrician, died on December 1 at a hospital there. He had been ill for about six months.

Dr. Floyd Clarke, 82, who practiced at LeMars from 1904 until 1915, before taking specialty training and joining the faculty of the Creighton University Medical School, died at his home in Crosby, Texas, on October 22.

Dr. John D. Geisinger, 77, who began medical practice in Milford in 1908 and worked there and at Spirit Lake for a number of years, died on November 5 at a hospital in Pueblo, Colorado, where he had been located for 27 years.

Dr. Harold Paul Cole, 69, of Thurman, died on December 8 at the Jennie Edmundson Memorial Hospital, in Council Bluffs, after a three-day illness.

Dr. Alice May Clark Brooks, 83, who practiced at McGregor from 1902 until 1925, died at the Community Hospital there on December 8 after a week's illness.

The Month in Washington

(Continued from page xxxii)

reserved for selective groups likely to have high incidence of the disease.

* * *

Between July 1 and mid-December, almost half the population of the country had been taken ill with an upper respiratory condition, including Asian influenza.

* * *

In its first year of operation, Medicare spent $43 million, with $22 million going to civilian physicians and $21 million to civilian hospitals; administrative costs ran about 3 per cent. Some claims are still pending.



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Vitamin A (Ester) 1500 USP Units ⅜ M.D.R.
Vitamin D (Irradiated Ergosterol) 200 USP Units ½ M.D.R.
Thiomine Mononitrate (B_1) 1 mg. 1 M.D.R.
Riboflavin (B_2) .... 2 mg. 2 M.D.R.
Ascorbic Acid (C) 16.66 mg. ½ M.D.R.
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INDUSTRIAL HEALTH CONGRESS

The Eighteenth Annual Congress on Industrial Health, sponsored by the AMA, will be held January 27-29 at the Schroeder Hotel, Milwaukee, with the Wisconsin Medical Society, the Milwaukee County Medical Society and the Wisconsin chapter of AAGP cooperating.

The opening session, Monday afternoon, January 27, will be devoted to public and professional relations in occupational health. The Tuesday morning discussion will be devoted to disability. Various problems in occupational dermatitis will be discussed Tuesday afternoon. The Wednesday morning session on low back pain will include discussions on cause, economic importance, treatment, prevention by medical examination and selective job placement, and rehabilitation and evaluation of disability.

Dr. Gunnar Gundersen, of LaCrosse, president-elect of the AMA will speak at the annual banquet on Tuesday evening.

CHICAGO OPHTHALMOLOGICAL SOCIETY

The Chicago Ophthalmological Society will hold its annual clinical conference at the Drake Hotel, Chicago, on February 21 and 22, 1958. The guest speakers will include Dr. Wendell L. Hughes, Hempstead, N. Y.; Dr. P. Robb McDonald, Philadelphia; Dr. Phillips Thygeson, San Jose; Dr. Lorenz E. Zimmerman, Washington; Dr. Eugene R. Folk, Chicago; and Drs. Orville E. Gordon, William F. Hughes, Peter C. Kronfeld, David Shoch, Derrick Vail and Howard L. Wilder, all of Chicago. The subjects will include the complications of ophthalmic surgery, the zonule of the lens, glaucoma and retinal detachment surgery, plastic surgery, management of glaucoma and cataract, melanotic tumors of the iris and the structure of the vitreous.

The registration fee will be $45, and registration should be made with Mrs. Edward J. Ryan, 1150 North Lorel Avenue, Chicago 51.

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President Elect.....Walter D. Abbott, Des Moines
Vice President.....Rubin H. Flocks, Iowa City
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Speaker of the House of Delegates,
Charles V. Edwards, Council Bluffs
Vice Speaker of the House of Delegates,
Harold W. Morgan, Mason City

COUNCILORS

	Term Expires
First District, Ralph M. Dahlquist, Decorah	1958
Second District, Jay E. Houlahan, Mason City	1959
Third District, Dean H. King, Spencer	1960*
Fourth District, Paul W. Brecher, Storm Lake	1958
Fifth District, Bruce F. Howar, Webster City	1960*
Sixth District, S. Dale Porter, Grinnell	1958
Seventh District, Christian E. Radcliffe, Iowa City	1959
Eighth District, John H. Sunderbruch, Davenport	1960*
Ninth District, George S. Atkinson, Oskaloosa	1959
Tenth District, Harold J. Peggs, Creston	1960*
Eleventh District, Charles H. Flynn, Clarinda	1958

TRUSTEES

George H. Scanlon, Iowa City, Chairman	1960*
Arthur F. Fritchen, Decorah	1958
Samuel P. Leinbach, Belmond	1959

DELEGATES TO AMA

	Term Expires
Donovan F. Ward, Dubuque	January 1, 1960*
Robert N. Larimer, Sioux City	January 1, 1959
Francis C. Coleman, Des Moines	January 1, 1959

ALTERNATE DELEGATES TO AMA

	Term Expires
Frank G. Ober, Burlington	January 1, 1960*
Henning W. Mathiasen, Council Bluffs	January 1, 1959
Callistus H. Stark, Cedar Rapids	January 1, 1959

EXECUTIVE COUNCIL

Fred Sternagel, Chairman	West Des Moines
Walter D. Abbott	Des Moines
Rubin H. Flocks	Iowa City
Richard F. Birge	Des Moines
N. Boyd Anderson	Des Moines
Charles V. Edwards	Council Bluffs
George H. Scanlon	Iowa City
Arthur F. Fritchen	Decorah
Samuel P. Leinbach	Belmond
Ralph M. Dahlquist	Decorah
Jay E. Houlahan	Mason City
Dean H. King	Spencer
Paul W. Brecher	Storm Lake
Bruce F. Howar	Webster City
S. Dale Porter	Grinnell
Christian E. Radcliffe	Iowa City
John H. Sunderbruch	Davenport
George S. Atkinson	Oskaloosa
Harold J. Peggs	Creston
Charles H. Flynn	Clarinda
Donovan F. Ward	Dubuque
Robert N. Larimer	Sioux City
Francis C. Coleman	Des Moines
Tom D. Throckmorton	Des Moines
John W. Billingsley	Newton

* Re-elected at 1957 annual meeting

THE JOURNAL

Everett M. George ..... Des Moines

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W. D. Abbott ..... Des Moines
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N. B. Anderson ..... Des Moines

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F. C. Coleman, Chairman ..... Des Moines
Fred Sternagel ..... West Des Moines
W. D. Abbott ..... Des Moines
L. A. Coffin ..... Farmington
N. W. Irving ..... Des Moines
J. E. Kelsey ..... Des Moines
R. L. Wicks ..... Boone
G. E. McFarland, Jr. ..... Ames
D. O. Newland ..... Des Moines

Medico-Legal Committee

V. C. Robinson, Chairman ..... Des Moines (1959)
J. C. Nolan ..... Corning (1960)
L. D. Powell ..... Des Moines (1958)
H. H. Allen ..... Fort Dodge (1958)
J. D. Conner ..... Nevada (1959)

Committee on Articles of Incorporation and By-Laws

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OBSTETRICS AND GYNECOLOGY

The following program on obstetrics and gynecology is to be offered at Conkling Hall, on the Omaha campus of the University of Nebraska College of Medicine, January 16 and 17, 1958. It has been approved for Category I credit by the American Academy of General Practice, and the registration fee is $20. Physicians are invited to preregister by writing to the Office of Postgraduate Affairs.

Thursday, January 16

9:15 a.m. "Management of Incomplete Abortion"—Leland J. Olson, M.D.
9:45 "Changing Indication for Cesarean Section"—William C. Keettel, M.D., professor of obstetrics and gynecology, State University of Iowa
10:50 "Postoperative Care"—Clyde E. Penner, M.D.
11:30 "Surgical Approach to Sterility"—Louis M. Hellman, M.D., professor and chairman, Department of Obstetrics and Gynecology, State University of New York, New York City
1:30 p.m. "Surgical Correction for Stress Incontinence"—John L. McKelvey, M.D., professor and chairman, Department of Obstetrics and Gynecology, University of Minnesota, Minneapolis
2:15 "Cystometric Studies"—Roy G. Holly, M.D.
3:20 "Is the Manchester Operation of Value in the Treatment of Uterine Prolapse?"—Dr. Keettel
4:00 PANEL DISCUSSION: Preservation of Ovarian Tissue at Surgery—Hilton A. Salhanick, M.D., and Drs. Keettel, Hellman and Mc Kelvey

Friday, January 17

9:00 a.m. "The Incompetent Cervix"—William L. Rumbolz, M.D.
9:45 "Uterine Dysfunction"—Dr. Hellman
11:05 "Carcinoma of the Vulva"—Dr. McKelvey
1:30 p.m. "Management of Carcinoma of the Ovary"—Dr. Keettel
2:20 "Obstetric Anesthesia"—Dr. Hellman
3:30 "Local Anesthesia in Obstetrics and Gynecology"—Dr. McKelvey
4:30 Question and Answer Period

"MARCH OF MEDICINE" TV PROGRAM JANUARY 23

The work of American physicians in remote regions of the world where native populations are largely dependent upon our doctors and medicine for their health and well-being is the television story to be aired coast-to-coast on January 23 in the Smith, Kline & French Laboratories "March of Medicine" program. It will report on doctors' activities in thoracic and general surgery, orthopedics, ophthalmology and general medicine in such far-flung areas as Korea, Hong Kong, Burma, Sarawak, Nepal, India, Lebanon and Ethiopia. A special "March of Medicine" team traveled more than 34,000 miles to film these doctors in their unofficial roles as America's "medical diplomats."

History of the Kossuth County Medical Society

(Continued from page 50)

f the Kossuth County Medical Society. He is a ıember of the Methodist Church and of the Lions 'lub, and his hobbies include constructing model rains, woodworking and painting.

Dr. Paul Warner, of Wesley, graduated from the .U.I. College of Medicine in 1952, and interned t Iowa Lutheran Hospital, in Des Moines. During Vorld War II he had served three years in the Army Iedical Corps in the Pacific Theatre, with the rank f T-5. He set up practice in Des Moines in 1953, nd moved to Wesley in 1955. He holds member- hip in AAGP, in the Evangelical Free Church nd in the Lions Club. His hobby is photography.

Dr. Eugene Stockdale, a graduate of the Univer- ity of Illinois Medical School who served his in ernship at a Rockford, Illinois, hospital and a esidency at Broadlawns-Polk County Hospital,)es Moines, took over the practice of Dr. James)evine, in Whittemore, for a few months in 1956.)r. Stockdale and his wife then left for a four- ear tour of duty as medical missionaries for the 3aptist Church at New Hope Settlement, a leper olony in the British Cameroons, in West Africa.

Dr. James Devine graduated from the College f Medicine at S.U.I. in 1947, and interned at Iercy Hospital, Iowa City. After six months in .atimer, Iowa, he located in Whittemore in 1949. Recently, he has been in military service on the Vest Coast.

Dr. John Lesiak graduated from the school of nedicine at Creighton University in 1951, and nterned for a year at Mercy Hospital, Des Moines. Ie started practice at Sumner in 1952, from there noved to Tripoli, where he spent approximately a 'ear, and before opening an office in Titonka was ıssociated with a group in Buffalo Center. He is a Catholic and his hobbies are golf and radio.

VA SEEKS PHYSICIANS

The Veterans Administration Center in Des Moines is seeking to hire two physicians. It wants ın internist, preferably board certified or board ·ligible, to serve as staff physician, and it can pay rom $6,390 to $10,320. In addition, it wants a doc- or to serve as a full-time member of its rating)oard, at a salary of $8,645. For the latter job, he maximum age limit can be waived, and minor)hysical impairments will be no barrier. In fact, 'or the rating board job, the VA anticipates that ıpplicants will be doctors who because of age or)artial disabilities wish to find themselves posts n which they will be required to work no more han 40 hours per week.

Those who are interested are asked to write o the Personnel Office, Veterans Administration Center, Valley Bank Building, Des Moines 9.

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ILLINOIS CONFERENCE ON MATERNAL AND AND INFANT CARE

The Second Illinois Congress on Maternal and Infant Care will be held at the Hotel Pere Marquette, in Peoria, February 4-6, 1958. Representatives from obstetrics, gynecology, general practice, pediatrics, anesthesiology and nurse anesthesia, nursing, nutrition, public health, hospital administration and social service will have parts in the program. There will be panel discussions of "Parent Education—Whose Responsibility?" "Prematurity as a Team Problem," and "The Complicated Pregnancy." There will be a formal paper on "The First Ten Minutes of Life," and there will be a paper and two discussants' comments on "Premarital Counselling," "Mental Retardation," "Emergencies of the Newborn," "Use of Unused Beds," "Family Counseling," "Obstetric Analgesia and Anesthesia," "Emotional Aspects of Pregnancy and Labor," and "Induction of Labor."

Further information and registration forms can be secured from Howard I. Wells, Jr., Executive Secretary, Illinois Committee on Maternal Welfare, 116 South Michigan Avenue, Chicago 3.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The twenty-first annual meeting of the New Orleans Graduate Medical Assembly will be held March 3-6, 1958, with headquarters at the Roosevelt Hotel.

Eighteen outstanding guest speakers will participate, and their presentations will be of interest to both specialists and general practitioners. The program will include 54 informative discussions on many topics of current medical interest, in addition to clinicopathologic conferences, symposia, medical motion pictures, roundtable discussions and technical exhibits.

The Assembly has been approved for Category 1 credit by the American Academy of General Practice. A total of 30 hours' credit is available.

Following the meeting in New Orleans, arrangements have been made for a tour to Mexico City, Cuernavaca, Taxco and Acapulco, leaving on Friday, March 7, and returning (to New Orleans) on Tuesday, March 18.

Details of the New Orleans meeting and the succeeding tour are available at the office of the Assembly, 1430 Tulane Avenue, New Orleans 12.

Plan to attend the 1958
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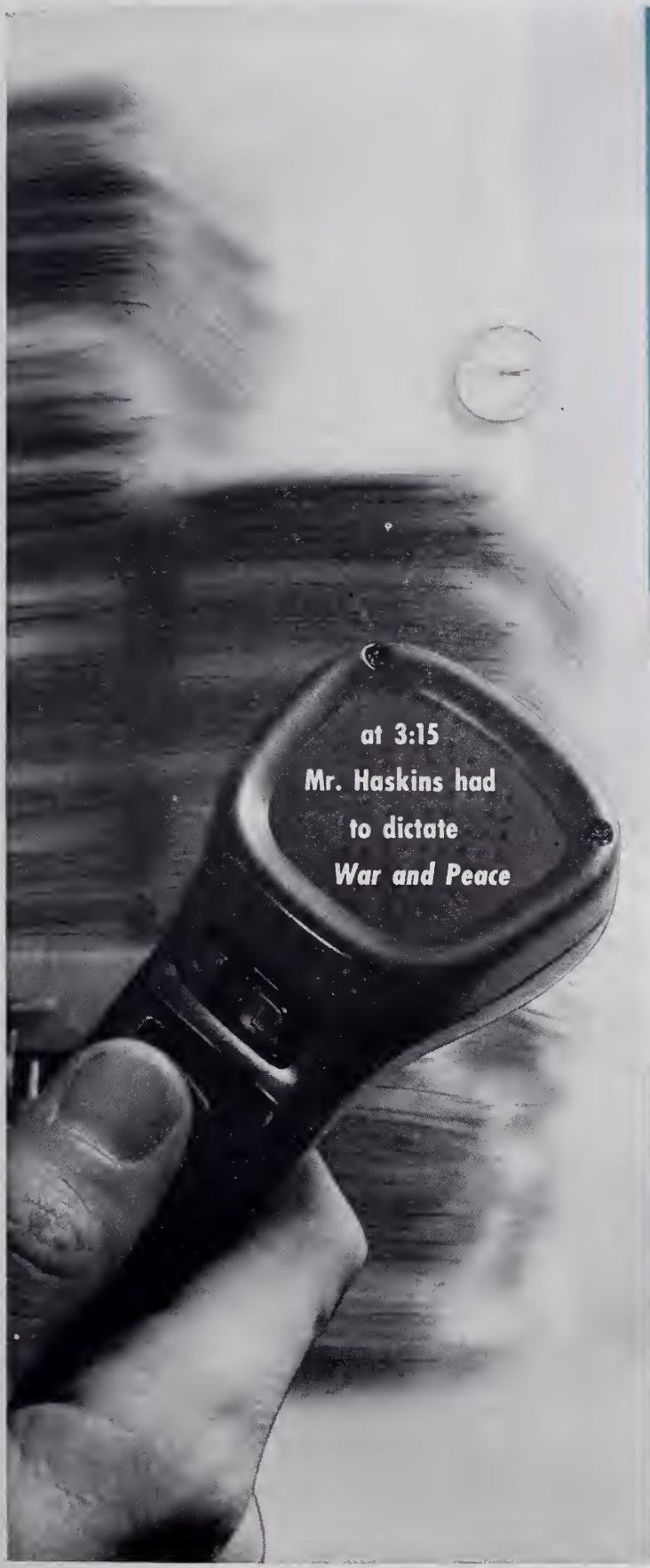
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POSTGRADUATE COURSE IN DIABETES

Dr. Charles H. Best, of Toronto, co-discoverer of insulin, will be a featured speaker at the American Diabetes Association's Sixth Postgraduate Course in Diabetes and Diabetic Metabolic Problems, to be held in Atlanta January 22-24, 1958.

The topics to be covered at the various sessions are: Hormonal Influences; Treatment; Problems in Treatment; and Stress and Strain. The faculty is to include Dr. Arnold Lazarow, head of the Department of Anatomy at the University of Minnesota; Dr. Alexander Marble, Boston; Dr. Franklin B. Peck, Sr., Indianapolis; Dr. Rachmiel Levine, chairman of the Department of Medicine at Michael Reese Hospital, Chicago; Dr. Garfield G. Duncan, Jefferson Medical College; Dr. Francis D. W. Lukens, University of Pennsylvania; Dr. Harvey C. Knowles, Jr., University of Cincinnati; Dr. E. Paul Sheridan, University of Colorado; Dr. Henry T. Ricketts, University of Chicago; Dr. W. Wallace Dyer, University of Pennsylvania; Dr. T. S. Danowski, University of Pittsburgh; Dr. Thomas Findley, Medical College of Georgia; Dr. Walter L. Bloom, director of medical education and research, Piedmont Hospital, Atlanta; and Dr. Henry B. Mulholland, University of Virginia.

The fee for members of the American Diabetes Association is $40, and for non-members it is $75. The American Academy of General Practice will give 20 hours' postgraduate credit to those of its members who attend it. For further information, write to the American Diabetes Association, 1 East 45th Street, New York City 17.

AMA-AHA JOINT COMMITTEE ON MEDICOLEGAL PROBLEMS

A concerted educational program on medical professional liability is being formulated by a joint committee of the American Medical Association and the American Hospital Association. Among other things, the liaison committee plans to study current medicolegal advisory set-ups in a number of states, the liability of charitable and governmental hospitals, and ways of promoting postgraduate education in the professional liability field. Progress reports will be submitted to the boards of trustees of the two associations, and physicians and hospital personnel will be kept informed of all actions taken through the organizations' official publications.

Some of the joint committee's first recommendations are the following: (1) that the fourth film in the medicolegal series cover the subject of in-hospital professional liability prevention, and (2) that joint medical-hospital liaison committees be appointed at the state level with purposes similar to those of the national joint committee.



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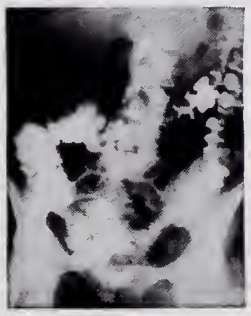
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A New Program for Aged Care

In America, 14,426,000 persons are 65 years of age or older, and the number reaching this age group increases annually.

The medical profession and hospital officials have an increasing awareness of the mounting burden of chronic and prolonged illness of the aged and its demands on hospitals and the community.

Blue Cross and Blue Shield, the sponsored prepayment plans, are carefully studying the problem. In the past, these plans have permitted persons who hold the coverage at 65 to continue on with their protection, but more is needed. Very little opportunity is provided by the voluntary insurance industry for persons over 65 to purchase satisfactory protection.

It is a well-known fact that claim costs are higher for this aged group than for our normal work force; so on a pure cost factor, it is unfortunate that at a time when they can least afford to pay, they are most in need of prepaid care.

Many times expensive (around-the-clock) hospital care is not required for our elders who are chronically ill. We must look to other—more economical—facilities such as the convalescent hospital or geriatrics section within the hospital, the nursing home and a workable home-care program.

Fundamentally, our fathers and mothers don't like to be transplanted from their familiar surroundings, yet oftentimes they require certain medical and nursing services. Home-care programs which have been in operation for several years have demonstrated that many patients with long-term illness derive greater therapeutic benefit from care in their homes than from care in any other type facility.

Can Blue Cross and Blue Shield underwrite supplemental coverage to their basic hospitalization and surgical-medical care programs wherein other less expensive means of care can be provided on a prepayment basis?

If the hospitals will provide convalescent facilities at substantially reduced daily rates, if nursing home care can be made available, and if home-care plans can be introduced—then perhaps the over-all costs of caring for the chronically ill can be underwritten through the insurance mechanism.

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 1:15 p.m.

"SIXTEEN—GROWING UP"

anuary 9 ..... Money
anuary 16 ..... Boy Meets Girl
anuary 23 ..... Mama's Boy—Daddy's Girl
anuary 30 ..... Habits and Health

WSUI—Iowa City, Iowa
Monday at 3:30 p.m.

"GOLD MEDAL DOCTORS"

anuary 6 ..... Elliott P. Joslin, M.D.
anuary 13 ..... George Dork, M.D.
anuary 20 ..... George Minat, M.D.
anuary 27 ..... Anton J. Carlson, M.D.

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

anuary 1 ..... The Doctor and the Minister
anuary 8 ..... Convalescent Care for Children
anuary 15 ..... Diagnostic Procedures
anuary 22 ..... Rh Factor
anuary 29 ..... Rupture

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

anuary 5 ..... Abdominal Pain
anuary 12 ..... The Doctor and the Minister
anuary 19 ..... Convalescent Care for Children
anuary 26 ..... Diagnostic Procedures

KRNT-TV—Des Moines, Iowa
Saturday at 4:00 p.m.

anuary 4 ..... High Blood Pressure
anuary 11 ..... Poison Information Center
anuary 18 ..... Infertility
anuary 25 ..... The Doctor and the Minister

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

anuary 5 ..... Rh Factor
anuary 12 ..... Rupture
anuary 19 Radioactive Diagnosis and Treatment
anuary 26 ..... Intervertebral Disc

WOI-TV—Ames, Iowa
Saturday at 10:00 a.m.

anuary 4 ..... Nursing
anuary 11 ..... Taking Care of Baby
anuary 18 ..... Psychiatry
anuary 25 ..... Alcoholism

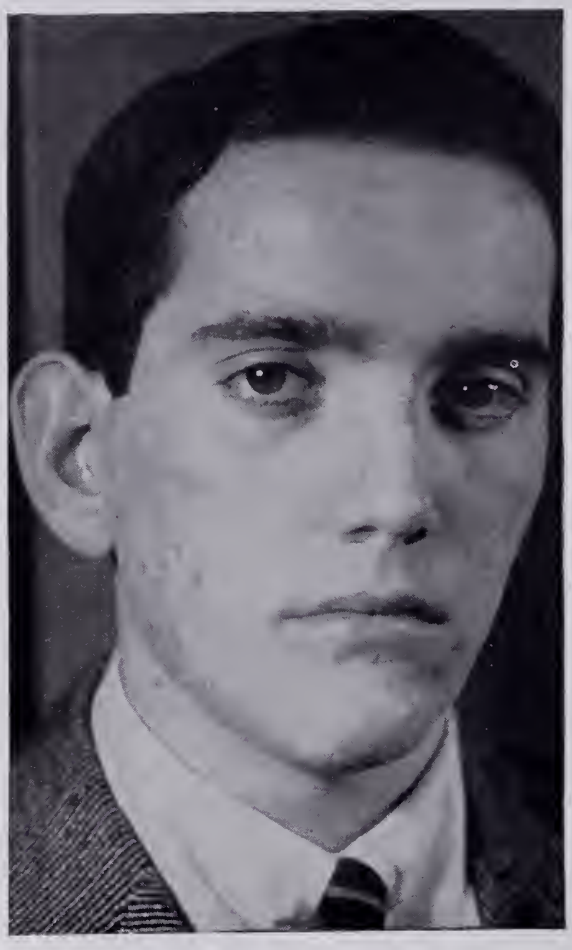
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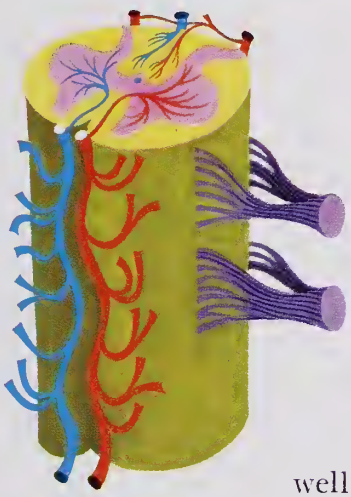
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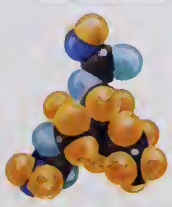
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(Additional Want Ads on page lxiii)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

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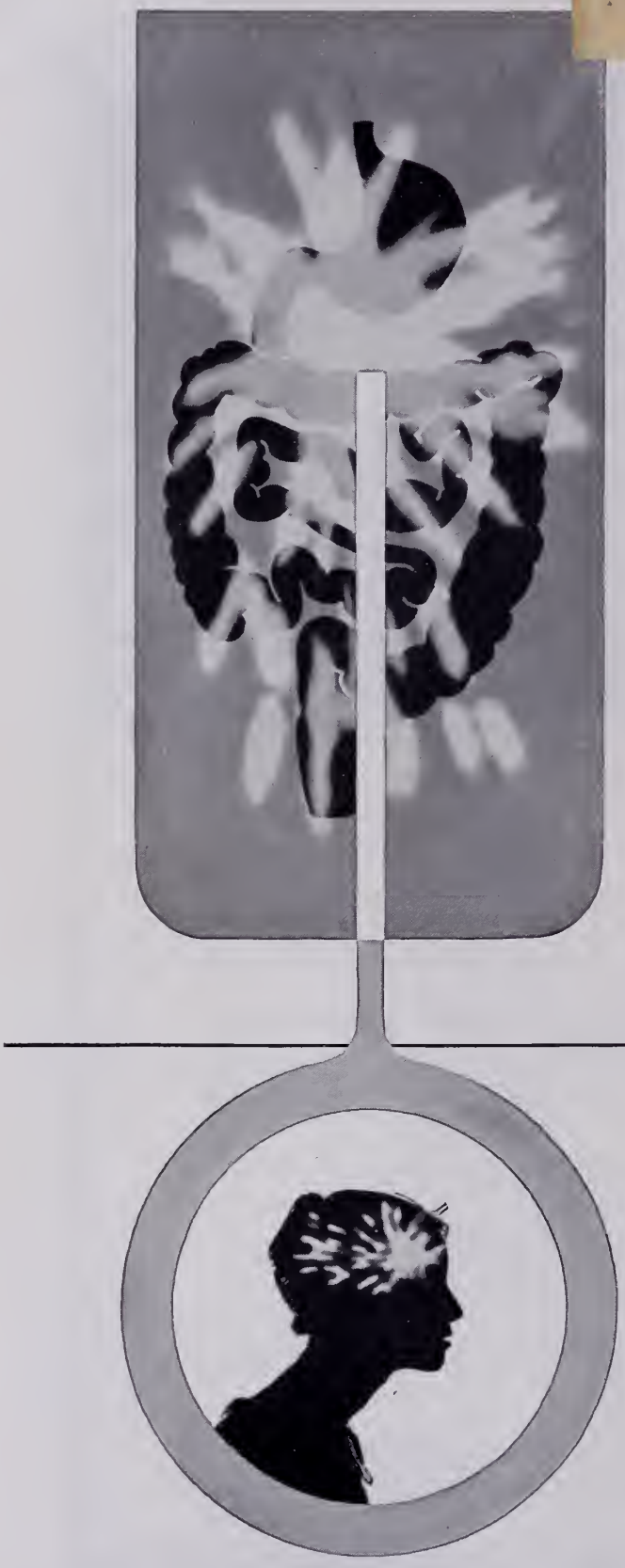
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In a recent report of five years' experience involving 2,142 patients, the authors conclude that CHLOROMYCETIN (chloramphenicol, Parke-Davis) is a valuable and effective antibiotic in the treatment of various acute infectious diseases.[1]

Other current reports of *in vivo* and *in vitro* studies agree that CHLOROMYCETIN has maintained its effectiveness very well against both gram-negative[2-6] and gram-positive[2,6-10] organisms.

CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

REFERENCES (1) Woolington, S. S.; Adler, S. J., & Bower, A. G., in Welch, H., & Marti-Ibanez, F.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 365. (2) Ditmore, D. C., & Lind, H. E.: *Am. J. Gastroenterol.* 28:378, 1957. (3) Hasenclever, H. F.: *J. Iowa M. Soc.* 47:136, 1957. (4) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 99:744, 1957. (5) Holloway, W. J., & Scott, E. G.: *Delaware M. J.* 29:159, 1957. (6) Rhoads, P. S.: *Postgrad. Med.* 21:563, 1957. (7) Petersdorf, R. G.; Bennett, I. L., Jr., & Rose, M. C.: *Bull. Johns Hopkins Hosp.* 100:1, 1957. (8) Royer, A.: Changes in Resistance to Various Antibiotics of Staphylococci and Other Microbes, paper presented at Fifth Ann. Symp. on Antibiotics, Washington, D. C., Oct. 2-4, 1957. (9) Doniger, D. E., & Parenteau, Sr. C. M.: *J. Maine M. A.* 48:120, 1957. (10) Josephson, J. E., & Butler, R. W.: *Canad. M. A. J.* 77:567 (Sept. 15) 1957.

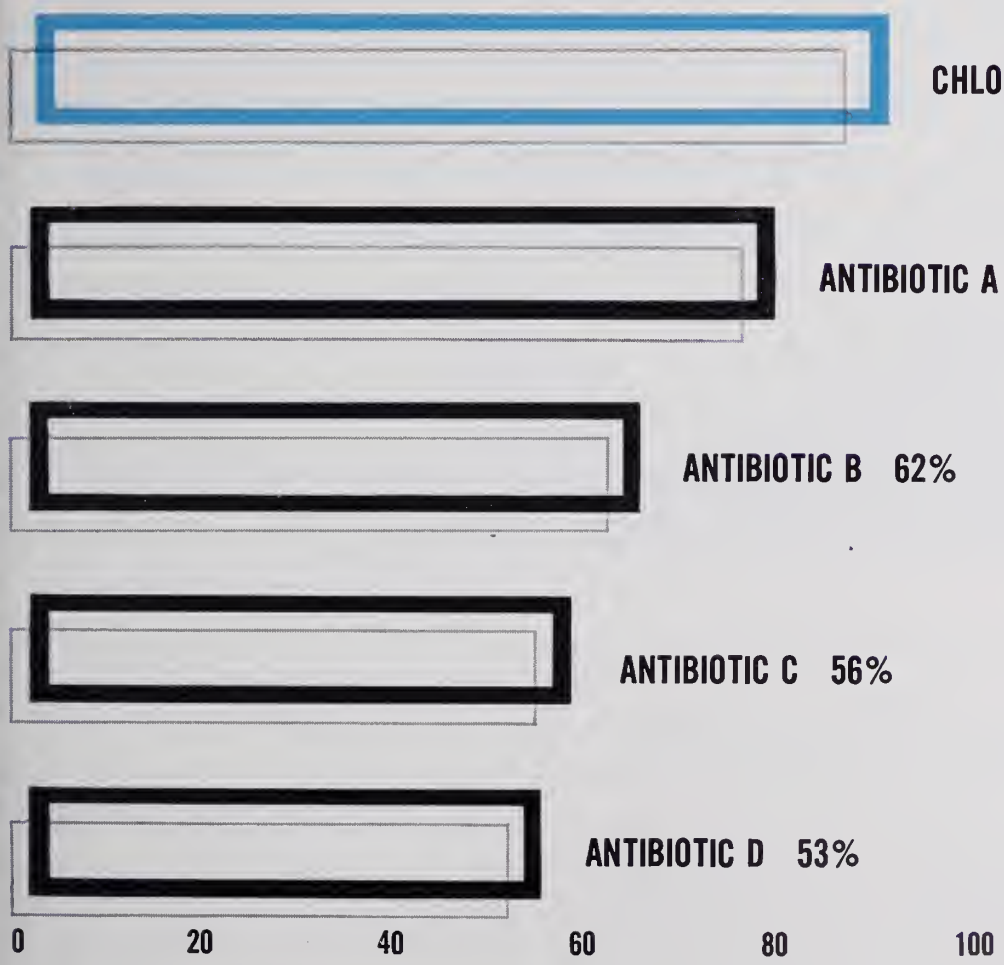
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IN VITRO SENSITIVITY OF MIXED PATHOGENS TO CHLOROMYCETIN AND 4 OTHER WIDELY USED ANTIBIOTICS*



*Adapted from Ditmore and Lind.[2] Organisms tested were isolated from stools of 48 patients.

25058

Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVIII FEBRUARY, 1958 No. 2

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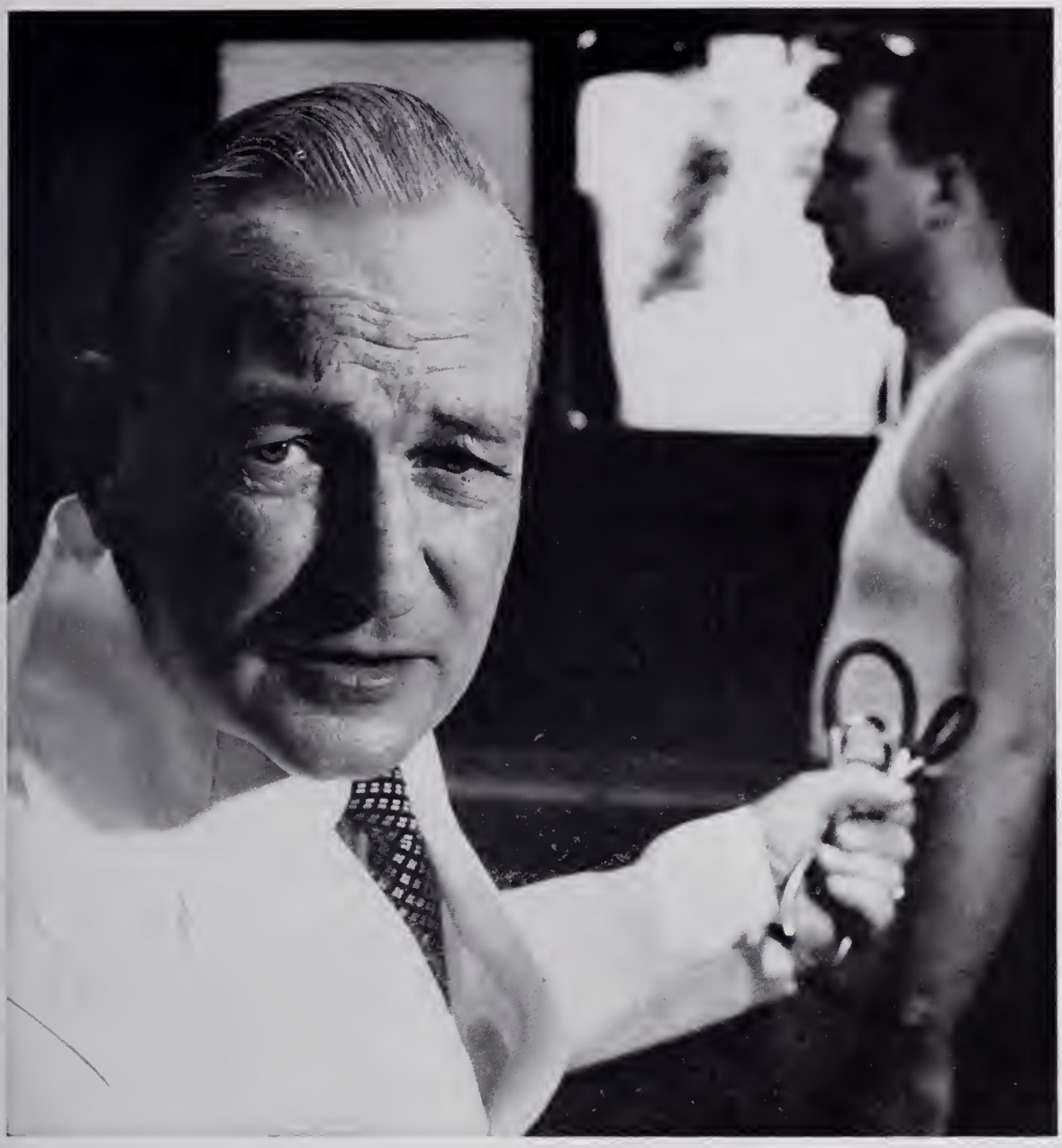
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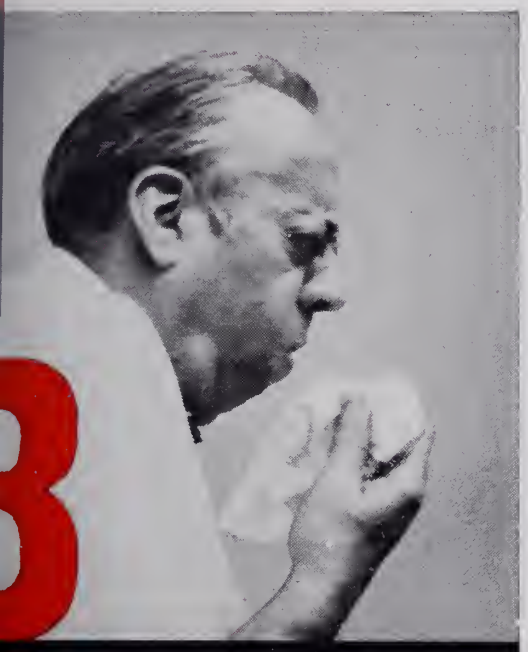
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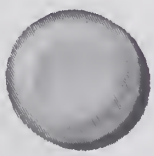
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STEARATE (Erythromycin Stearate, Abbott)

against staph-, strep- and pneumococci



Indications

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Usually administered in a total daily dose of 1 to 2 Gm., depending on severity of infection. Suggested dose is 250 mg. every six hours; for severe infections, usual dose is 500 mg. every six hours.

Supplied

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®Filmtab—Film-sealed tablets, Abbott; pat. applied for.



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Actually, after almost six years of extensive use, there has not been a single report of a serious reaction to ERYTHROCIN. And, after all this time, the incidence of resistance to ERYTHROCIN has remained exceptionally low.

You'll find ERYTHROCIN is highly effective against the majority of coccal infections and may also be used to counteract complications from severe viral attacks. It comes in *Filmtabs* and in Oral Suspension. Abbott

802068

Compocillin-V®

for those penicillin-sensitive organisms



802071

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Against all penicillin-sensitiv organisms. For prophylaxis an treatment of complications i viral conditions. And as a prophy laxis in rheumatic fever and i rheumatic heart disease.

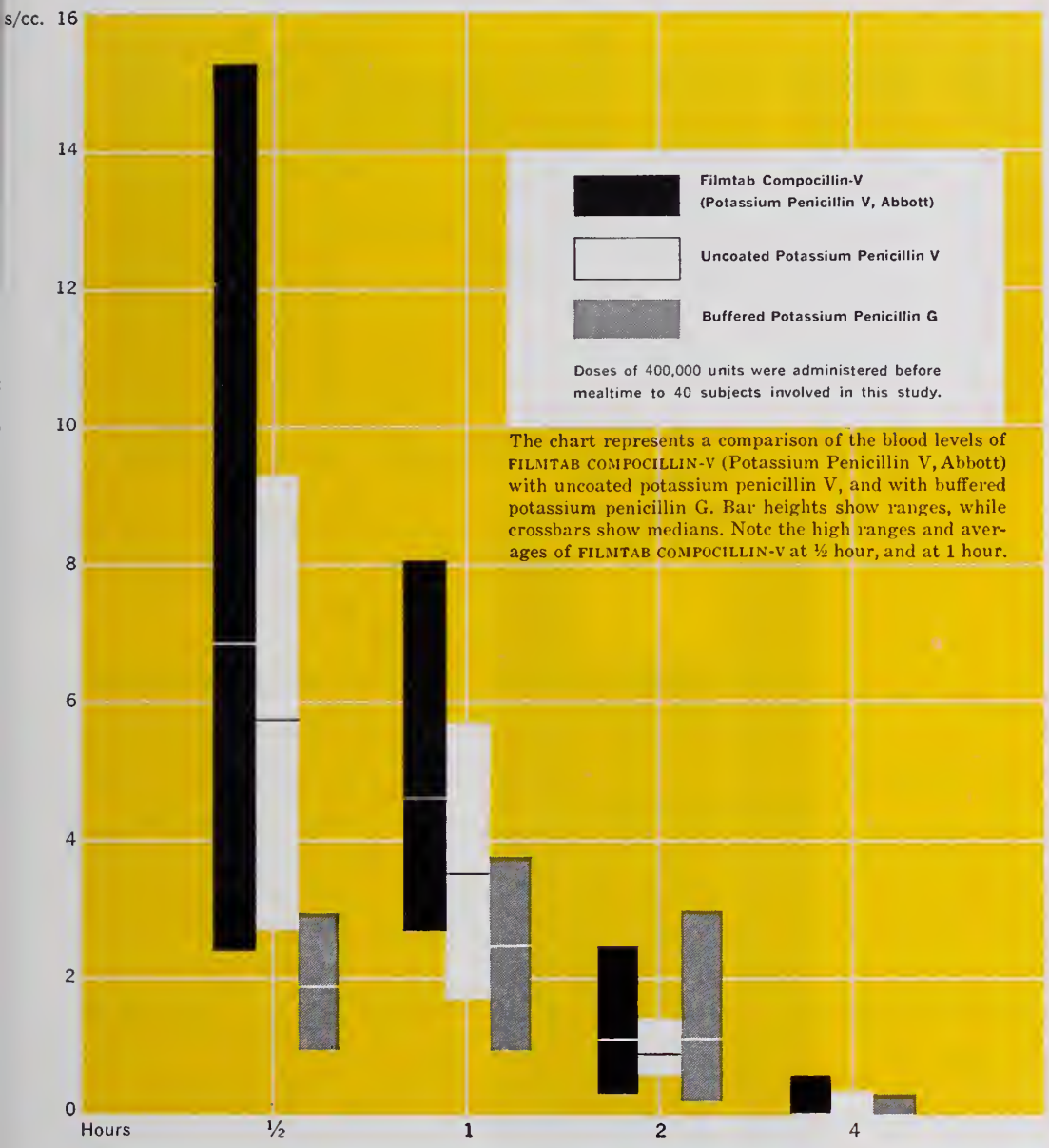
Dosage

Depending on the severity of th infection, 125 to 250 mg. (200,00 to 400,000 units) every four to si hours. For children, dosage is de termined by age and weight.

Supplied

Filmtabs COMPOCILLIN-V (Potas sium Penicillin V, Abbott) come i 125 mg. (200,000 units), bottles o 50; and in 250 mg. (400,000 units bottles of 25. Oral Suspensio COMPOCILLIN-V (Hydrabamin Penicillin V, Abbott), contains 18 mg. per 5-cc. teaspoonful, in 40-c and 80-cc. bottles.

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Spontin®

(Ristocetin, Abbott)

and when coccal infections hospitalize the patient



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SPONTIN is indicated for treating gram-positive bacterial infections. Clinical reports have indicated its effectiveness against a wide range of staphylococcal, streptococcal and pneumococcal infections. It can be considered a drug of choice for the immediate treatment of serious infections caused by organisms resistant to other antibiotics.

Dosage

Recommended dosage depends on the sensitivity of the microorganism and on the severity of the disease under treatment. For pneumococcal and streptococcal infections, a dosage of 25 mg./Kg. per day will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. However, in endocarditis due to relatively resistant strains or where vegetations or abscesses occur, dosages as high as 75 mg./Kg. per day may be used. It is recommended that the daily dosages be divided into two or three equal parts at eight- or twelve-hour intervals.

Supplied

SPONTIN is supplied as a sterile, lyophilized powder, in vials representing 500 mg. of ristocetin activity.

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SPONTIN comes to the medical profession with a clinical history of dramatic results — cases where the patients were given little chance of survival.

During these careful, clinical investigations, lives were saved after weeks (and sometimes months) of antibiotic failures. These were the cases where the infecting organisms had become resistant to present-day therapy. And, just as important, were the good results found against a wide range of gram-positive coccal infections.

Essentially, SPONTIN is a drug for hospital use, for patients with potentially dangerous infections. In its present form, SPONTIN is administered intravenously using the drip technique. Dosage may be dissolved in 5% dextrose in water or in any isotonic or hypotonic saline solution. Some of the important therapeutic points of SPONTIN include:

1. successful short-term therapy for acute or subacute endocarditis
2. new antimicrobial activity — no natural resistance to SPONTIN was found in tests involving hundreds of coccal strains
3. antimicrobial action against which resistance is rare — and extremely difficult to induce
4. bactericidal action at effective therapeutic dosages.

SPONTIN is truly a lifesaving antibiotic. It could save the life of one of your patients — does your hospital have it stocked?

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help reduce
the pressures
IN your
patients

help reduce
the pressures
ON your
patients



for total management
of your hypertensive
patients rely upon

RAUDIXIN

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Raudixin provides gradual, sustained lowering of blood pressure in hypertensive patients, as well as a mild bradycardia. Hence, the work load of the heart is reduced.

"... often preferred to reserpine in private practice because of the additional activity of the whole root."

Corrin, K. M.: Am. Pract. & Dig. Treatment 8:721 (May) 1957.

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the chill

the cough

the aching muscles

the fever



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there's

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when it's a simple cold



CORICIDIN® TABLETS

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CORICIDIN FORTE
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when infection threatens the cold



CORICIDIN with PENICILLIN
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when pain is a dominating factor



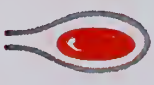
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when cough marks the cold



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don't let them broadcast colds



turn
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the
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with



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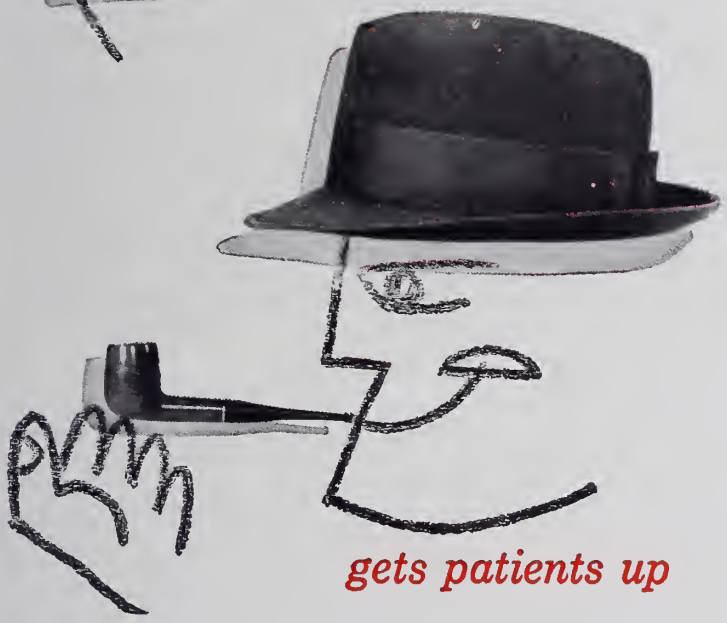


color-flecked tablets for relief of sneezes, sniffles, congestion and fever of children's colds

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puts colds down



gets patients up

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for "get-up-and-go"
METHAMPHETAMINE

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On Rx and cannot be refilled without your permission

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One capsule every four to six hours.

packaging

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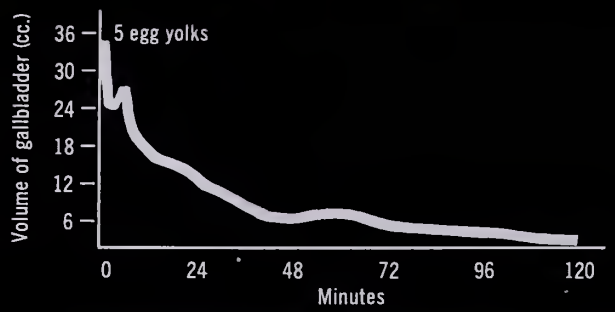
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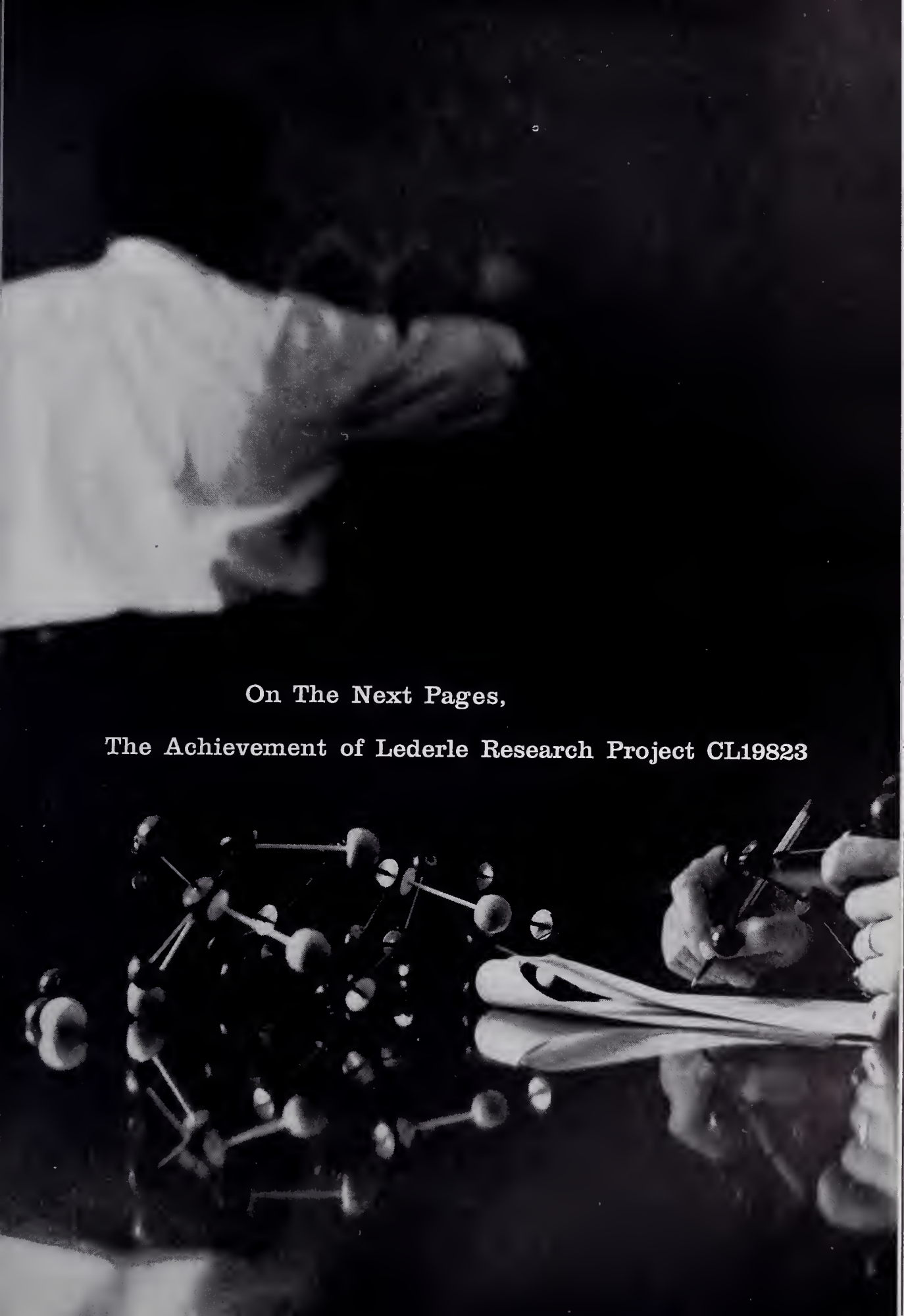
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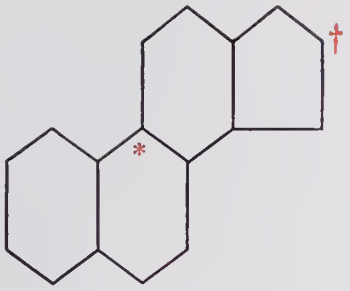
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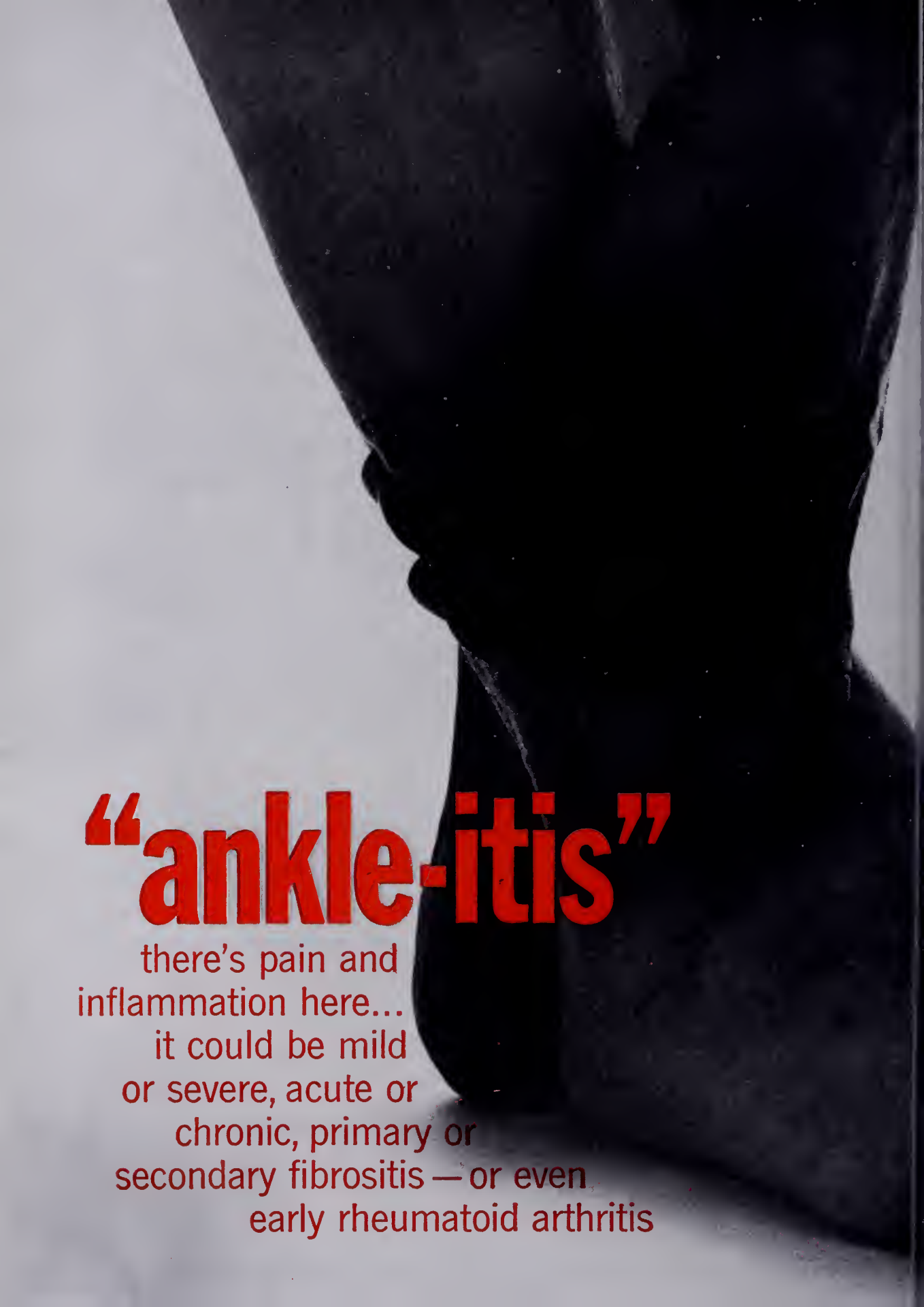
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there's pain and
inflammation here...
it could be mild
or severe, acute or
chronic, primary or
secondary fibrositis — or even
early rheumatoid arthritis

ore potent and comprehensive treatment an salicylate alone

sured anti-inflammatory effect of low-dosage rticosteroid[1] . . . additive antirheumatic action of rticosteroid plus salicylate[2-5] brings rapid pain ief; aids restoration of function . . . wide range application including the entire fibrositis syn-ome as well as early or mild rheumatoid arthritis

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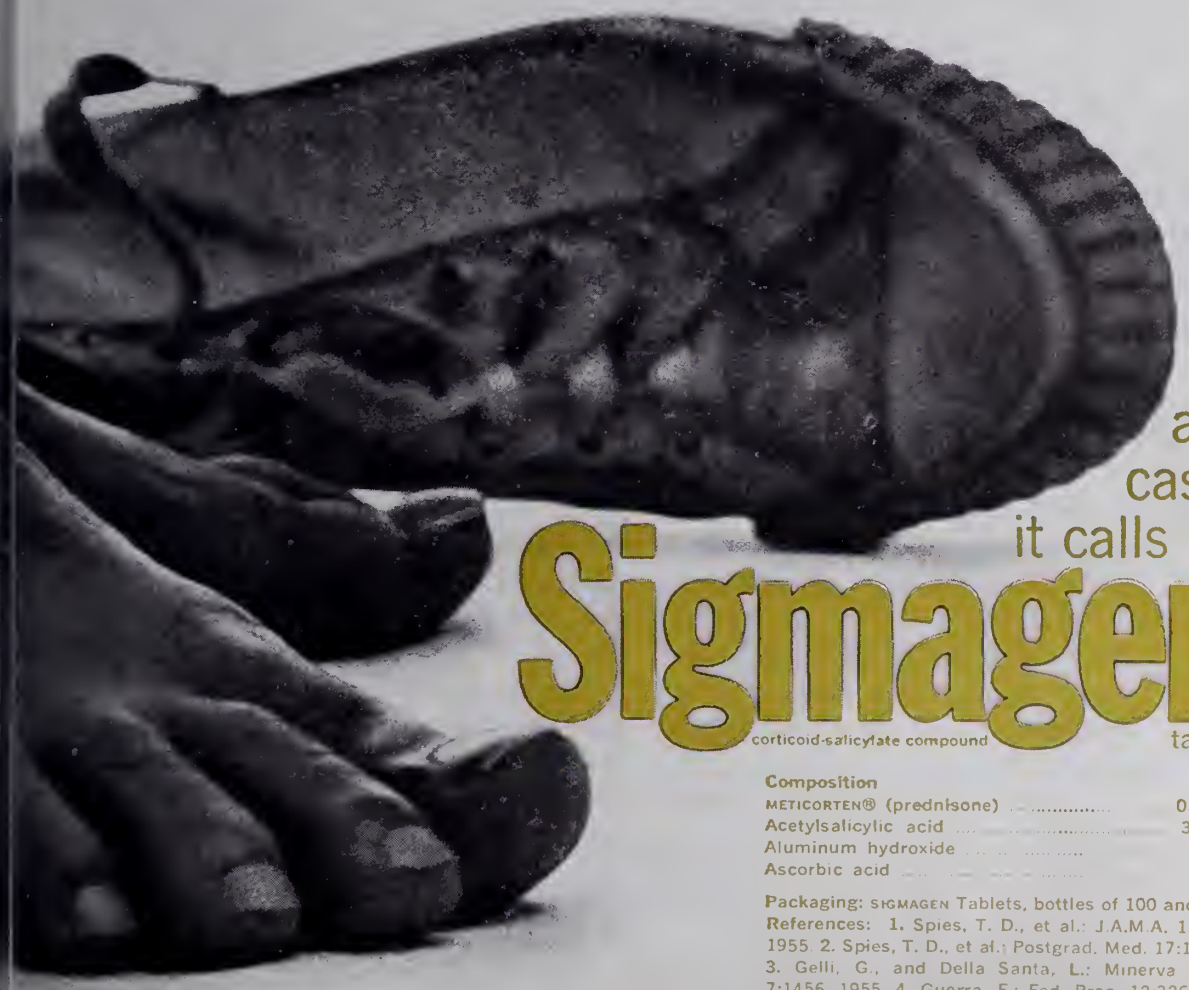
uch less likelihood of treatment-interrupting le effects[1-6] . . . reduces possibility of residual ury . . . simple, flexible dosage schedule

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corticoid-salicylate compound tablets

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References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

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Also consider 'Ilotycin' for safer therapy. Allergic reactions following systemic treatment are rare. Bacterial flora of the intestine is not significantly disturbed.

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stimulates protein synthesis,
corrects negative nitrogen balance

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Nilevar (brand of norethandrolone) has been used in patients with varied conditions including hyperthyroidism, poliomyelitis, aplastic anemia, glomerulonephritis, anorexia nervosa and postoperative protein depletion. The patients gained weight and felt better. It was concluded[2] that "the drug certainly caused a reversal of rather recalcitrant or progressive catabolic patterns of disease."

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent.

The suggested adult dosage is three to five tablets (30 to 50 mg.) daily. For children 1.5 mg. per kilogram of weight is recommended.

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1. Axelrod, A. E.; Beaton, J. R.; Cannon, P. R., and others: Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Incorporated, (March) 1954, p. 100.

2. Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

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The Month in Washington

Washington, D. C.—Russian advances in outer space have triggered a whole series of debates, not the least of which is on the question of the scope and extent of federal participation in higher education. From it may emerge, at the very minimum, a scholarship program benefiting pre-medical students and some medical students.

Here are some of the questions that Congress will have to answer before it writes a final bill on federal aid to higher education:

1. Should a program be limited to federal scholarships or should it include grant money for improving and enlarging colleges and universities, or for loans to students?

2. If it is limited to scholarships, should they be non-categorical in nature rather than favoring specific disciplines?

3. If non-categorical and thus benefiting all phases of higher education, how best to justify this approach in the national interest and national security?

4. Finally, if aimed at specific disciplines, should not Congress require some obligation for service on the part of the recipient?

Some of the answers have been given in the administration's plan now before Congress. As outlined by Secretary Folsom of the Department of Health, Education and Welfare, $1 billion would be authorized over a four-year period. The money would go for 10,000 scholarships a year to bright students unable to finance their schooling, for National Science Foundation grants and fellowships for post-doctoral training and up to $125,000 for any one school to improve facilities.

It has been explained that this program would benefit pre-medical students but that since scholarships would be limited to four years, students would have to find other ways to finance most of their years in medical school. After receiving their medical degrees, however, they would be eligible for the fellowships from the National Science Foundation.

The administration program favors the non-categorical approach, although preference would be given high school students with good preparation in math and the sciences. Students themselves would decide what college course to pursue.

This program has met mixed reaction. Educa-

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Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension: Some Observations on Comparative Toxicity of Reserpine, a Single Alkaloid, and Alseroxylon, a Compound Containing Multiple Alkaloids, Postgrad. Med., January, 1958.



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tors say considerably more money should be authorized—some asking for as much as four times the proposed $1 billion.

The American Council on Education, which takes in nearly all accredited colleges, universities and junior colleges, told a House Education subcommittee that the 10,000 scholarships are "a minimum below which a program of effectiveness would be doubtful. . . ."

The council outlined for the subcommittee these guiding principles:

1. The student should have complete freedom to choose his own program of studies within the requirements set by the individual institution.

2. Stipends up to a maximum amount set generally for the program should be sufficient to enable the student to attend an eligible college.

3. The student should not be denied the opportunity to attend any recognized college or university properly accredited under a regional accrediting association.

4. There should be no discrimination because of race, creed, color or sex.

NOTES

First legislative activity of interest to the medical profession this year was the House Ways and Means Committee's month-long hearing on tax revision; testimony in favor of the Jenkins-Keogh bill was presented late in January.

* * *

National Science Foundation is inviting colleges and universities to apply for financial help in conducting in-service courses and institutes for advanced study by high school mathematics and science teachers. Applications must be received by NSF before March 15.

* * *

A new national organization has been established to help in finding a cure for ulcerative colitis. Encouraged by the National Institute of Arthritis and Metabolic Diseases, the new foundation will use its funds to supplement those awarded by the federal government.

* * *

After six months' operation of the disability payments program under social security, benefits were going to more than 131,000 and totaled $10 million a month. Within the next 12 months the rolls are expected to increase to about 200,000, at an annual cost of about $175 million.

* * *

Influential Rep. John Fogarty (D., R. I.) wants the House to ask President Eisenhower to call a White House conference on aging, at which medical and all other problems of the older population would be taken up. Mr. Fogarty also would attempt to interest states in similar conferences, to be conducted prior to the Washington meeting.

when are tranquilizers indicated in pediatrics ?

Some doctors have questioned the use of tranquilizers in children. They feel, and rightly so, that these drugs should not be used as palliatives to mask distressing symptoms, while etiological factors go uncorrected. But there are three situations in which even the most conservative physician would not hesitate to use tranquilizers:

1. When the usually well-adjusted child needs a buffer against temporary emotional stress, such as hospitalization.
2. When a child needs relief from an anxiety-reaction that is in turn anxiety-provoking, so as to pave the way for basic therapy.
3. When anxiety underlies or complicates somatic disease, as in asthma.

In such situations, tranquilizers are likely to be more effective and better tolerated than previously accepted therapy, such as barbiturates.

But the question arises: which tranquilizer is suitable for children?

Most of the physicians now using tranquilizers in pediatric practice have found the answer to be ATARAX, confirming the conclusions of repeated clinical studies.

ATARAX is effective in a wide range of pediatric indications.
ATARAX has produced a "striking response" in a wide range of hyperemotive states.* In a study of 126 children, "the calming effect of hydroxyzine (ATARAX) was remarkable" in 90%.* Among the conditions that are improved with ATARAX are tics, nervous vomiting, stuttering, temper tantrums, disciplinary problems, crying spasms, nightmares, incontinence, hyperkinesia, etc.*

ATARAX is well tolerated even by children.
"ATARAX appears to be the safest of the mild tranquilizers. Troublesome side effects have not been reported. . . ."*

ATARAX offers two pediatric dosage forms.
ATARAX Syrup is especially designed for acceptability by medicine-shy youngsters. A small 10 mg. tablet is also available. In either case, you will get a rapid, uncomplicated response. Why not, for the next four weeks, prescribe ATARAX for your hyperemotive pediatric patients. See whether you, too, don't find it eminently suitable.

*Documentation on request

PEACE OF MIND ATARAX®
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ATARAX
in any hyperemotive state

for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

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Convenience—the low dose of 0.5 Gm. (1 tab- t) per day offers optimum convenience and ceptance to patients

NEW DOSAGE

The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

Tablets:
Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup:
Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

[1] Nichols, R. L. and Finland, M.: J. Clin. Med. 49:410, 1957.

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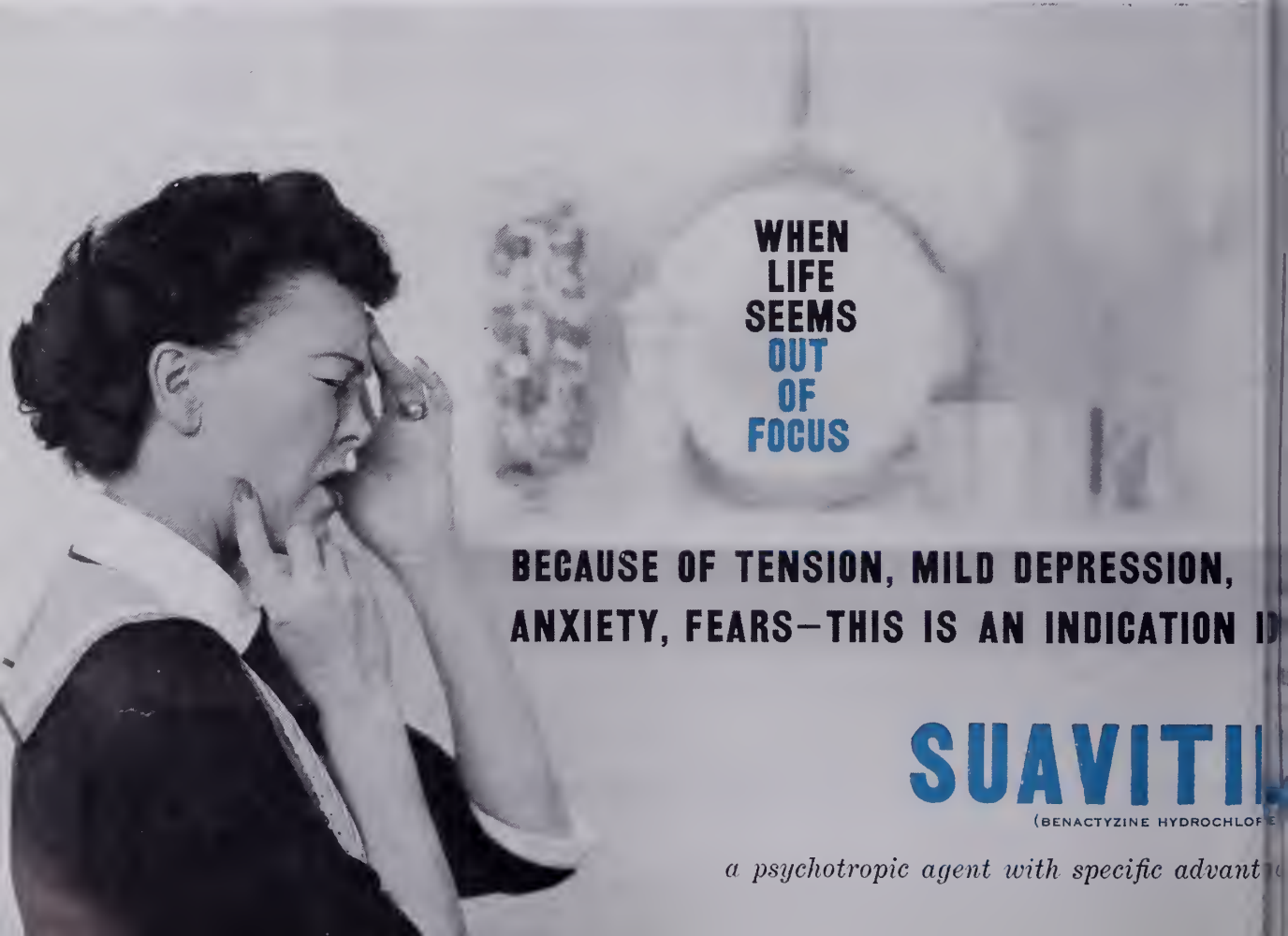
Just before Christmas, **Dr. M. F. Joynt,** of Marcus, was hospitalized at LeMars with virus pneumonia.

Dr. Robert M. Collins, of Council Bluffs, is the new president of the Omaha Obstetrical & Gynecological Society. He is the retiring president of the Iowa State Obstetrical & Gynecological Society.

Dr. Harold J. Peggs, of Creston, has decided not to resign the coronership of Union County, though he had announced his intention of doing so when the County Board of Supervisors refused to name all of the other doctors in the county as his deputies. **Drs. Robert Kuhl** and **William Mulford** have been deputized.

Dr. Otto E. Senft, an obstetrician, has joined the staff of the Kersten Clinic, in Fort Dodge. He holds a bachelor of divinity degree from Wartburg Seminary; he did his pre-med work at Johns Hopkins; he took his M.D. degree at George Washington University, Washington, D. C.; and he had his residency training at Suburban Hospital, Bethesda, Md.

Dr. Robert Sherman, of Ackley, was elected president of the Hardin County Medical Society at a meeting held in Eldora on December 18. He had been acting president since **Dr. R. N. Bremner** moved from Steamboat Rock to Cedar Falls last summer. The other new officers are **Dr. L. J. Smith,** Iowa Falls, vice-president; and **Dr. F. N. Cole,** Iowa Falls, secretary-treasurer.



During a recent meeting held in the Park Hotel at Sac City, **Dr. John Hubiak,** of Odebolt, was reelected president of the Sac County Medical Society, and **Dr. Manly Michaelson,** of Lytton, was elected secretary. **Dr. L. B. Amick,** of Sac City, was honored for having completed 50 years of medical practice.

On December 7, **Dr. William L. Stewart,** a Life Member of the Iowa State Medical Society, suffered severe burns about his eyes in a freak accident. As he was lighting his pipe, his hair caught fire, and from there the flames spread to the frames of his eyeglasses. He was hospitalized briefly, and then about three weeks later, he suffered a fatal heart attack.

Dr. C. E. Knouf, who practiced at Lake City for about 10 years, began a residency in internal medicine at the VA Hospital in Iowa City on January 1.

On December 31, **Dr. Philip M. Englund** moved from Burlington to Riverside, California. Before coming there in 1956, he had practiced briefly in Fort Dodge.

On December 14, the Boone County Medical Society members played hosts at a Christmas party for the employees of the Boone County Hospital at the Boone Golf and Country Club.

Dr. Sidney Cohen assumed the presidency of the Pottawattamie County Medical Society on December 17, succeeding **Dr. Lee Martin. Dr. J. G. Kruml** was chosen as president-elect; **Dr. Ernest Marsh, Jr.,** vice-president; **Dr. Richard Leander,** secretary-treasurer; **Dr. U. J. Collignon,** member of the Board of Censors; and **Drs. A. J. West** and **I. J. Hanssmann,** Council members. The Society's delegates to I.S.M.S. will be **Drs. Henning Mathiasen, George Pester** and **Frank Weber,** and the alternates will be Dr. Leander, Dr. Marsh and **Dr. Norman West.**

At the annual meeting of the Winneshiek County Medical Society, on December 12, **Dr. Lester E. Larson,** of Decorah, was elected president, succeeding **Dr. Garfield Miller,** of Calmar. **Dr. David W. Wright,** of Decorah, is the new vice-president, and **Dr. J. W. Holtey,** of Ossian, is secretary-treasurer. **Dr. E. F. Hagen,** of Decorah, was reelected delegate to the Iowa State Medical Society.

Workings of the State Society, together with its aims and plans, were described by **Dr. R. M. Dahl-**

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quist, of Decorah, a member of the ISMS Judicial Council, and **Dr. A. F. Fritchen**, of Decorah, a member of the ISMS Board of Trustees.

The Jasper County Medical Society reelected all of its incumbent officers at a meeting held in Newton on December 9. They are **Dr. L. D. Norris**, of Newton, president; **Dr. Dorothy C. Forsythe**, of Newton, vice-president; and **Dr. M. L. Jones**, of Colfax, secretary-treasurer.

The head of the S.U.I. Department of Home Economics, **Professor F. Eugenia Whitehead**, pointed out at a conference on nutrition in Berkley, California, in December, that the decline in the TB death rate among children has been general, except for adolescents, for whom there has been a sharp increase. She suggested that dietary deficiencies, especially among girls of that age group, may be largely responsible.

In mid-December, **Dr. J. R. Shorey**, of Davenport, moved into new offices at 119 East Tenth Street. He had bought the structure, which formerly was occupied by the Unitarian Church, and completely remodeled it. His suite occupies the ground floor, and there are apartments upstairs.

Dr. Walter A. Anneberg, on December 13, received a plaque from the lettermen's club of Carroll High School in recognition of his services on behalf of the school's athletic teams and of the encouragement he has given them.

Doctors and lawyers at Burlington are said to be considering the possibility of setting up a panel to act as referee in personal injury cases when the plaintiff's and the defendant's physicians have given conflicting testimony.

Dr. Paul O. Nelson, of Emmetsburg, sold his office building early in December and announced that he and his wife plan to take a trip to Europe. He expects to return sometime in April, and to reopen his practice if his health permits.

Dr. Patrick Cmeyla has taken office as president of the Woodbury County Medical Society, succeeding **Dr. John W. Bushnell. Dr. John D. Lutton** has been chosen as president-elect; **Dr. William M. Krigsten**, vice-president; **Dr. John P. Tiedeman**, secretary; **Dr. Donald J. Wagner**, treasurer; and **Drs. Carroll A. Brown** and **Joseph E. Dvorak**, censors.

At the meeting which the Society held in Sioux



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City on December 11, **Dr. Charles P. McHugh** presented a 50-year pin and a citation to **Dr. William G. Rowley.**

Dr. Edgar J. Connelly was elected president of the Dubuque County Medical Society at the group's meeting in mid-December at Dubuque. **Dr. Victor Nakashima** was made vice-president; **Dr. Charles Griffin**, second vice-president; **Dr. F. Ben Merritt**, secretary; and **Dr. S. A. O'Brien**, treasurer. **Dr. Lincoln F. Steffens** is the new trustee, and **Dr. Kenneth Hazlet** is censor. The delegates are to be **Drs. Donovan Ward, Charles Schueller** and **Robert McNamara**, and the alternates will be **Drs. P. J. Laube, Joseph Straub** and **Robert Petersen**. "The Other City," a film on cancer, was shown.

The Mahaska County Medical Society reelected three of its officers on December 10. They are **Dr. F. O. W. Voigt**, of Oskaloosa, president; **Dr. Richard Phelps**, of New Sharon, vice-president; and **Dr. Robert Collison**, of Oskaloosa, treasurer. **Dr. D. K. Campbell**, of Oskaloosa, was chosen as secretary. As they were last year, **Dr. G. W. Bennett**, of Oskaloosa, will be the delegate, and **Dr. Robert Alberti** will be the alternate delegate to the ISMS.

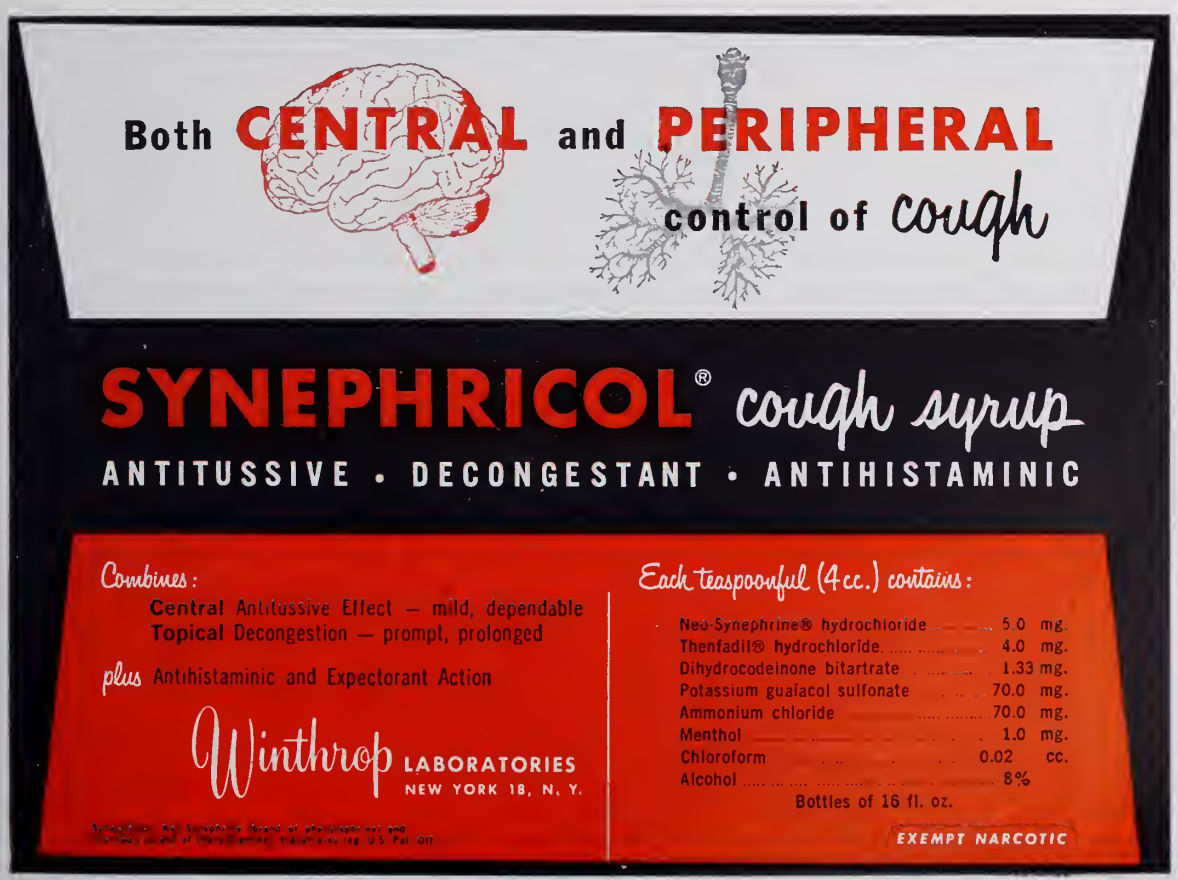
Dr. Charles P. McHugh, who has practiced in Sioux City since 1909 and has been public health director there since 1952, resigned his post in December. He expects hereafter to spend winters in Florida.

An article on infectious mononucleosis by **Dr. F. H. Top**, head of the Division of Preventive Medicine at the S.U.I. College of Medicine, appeared in an issue of the Sunday newspaper supplement THIS WEEK, early in December.

The Iowa County Medical Society has chosen **Dr. Burns Byram**, of Marengo, as its president; **Dr. Harold F. Moessner**, of Amana, vice-president; **Dr. Irvin J. Sinn**, of Williamsburg, secretary-treasurer; **Dr. Donald Miller**, of Williamsburg, delegate; **Dr. Larry Miller, Jr.**, of North English, alternate; and **Dr. Henry G. Moershel**, of Homestead, **Dr. C. F. Watts**, of Marengo, and **Dr. Donald Paulson**, of Victor, as censors.

The Iowa Heart Association has earmarked $75,992 for research in Iowa during the 1957-1958 fiscal year, according to **Dr. Herman J. Smith**, of Des Moines, its president. That is nearly double the $38,553 which it spent in that way last year.

Contributions totaled $243,723 this year, from which $107,331 will finance local public education programs and pay for administration and fund-raising; $60,000 goes to the AHA, of which more than half will support the national research program; $8,500 goes to the Cardiovascular Re-



search Laboratories at S.U.I.; and $37,992 has been divided among 12 individual projects, as follows.

Dr. John E. Gustafson and **Dr. John W. Green, Jr.,** of Des Moines, will receive $1,640 to finance a study of the causes of some complications following heart surgery. Dr. Gustafson will receive two additional grants, one of $1,125 to help pay for a 10-year study of normal EKG changes that occur during childhood, and the other of $1,090 to pay for work he is doing in an effort to determine the effects of surgery upon heart function.

Steven M. Horvath, Ph.D., an S.U.I. physiologist, will get $6,000 for a study of heart chemistry, and $2,500 for animal experiments in resuscitation.

Wayburn S. Jeter, Ph.D., of S.U.I., will get $3,845 for a study of the effects of streptococcic infections.

Dr. J. L. Ehrenhaft, professor of surgery at S.U.I., will receive $5,000 to help finance research in heart surgery technics.

Dr. J. W. Culbertson, director of the S.U.I. Cardiovascular Research Laboratory, and **Dr. John Eckstein** will receive $6,500 for research in measuring pressure, flow and volume of blood in veins throughout the body.

Dr. William H. Myerly, of Des Moines, is to get $600 for studies of the "danger area" in heart surgery.

Dr. W. E. Connor, of S.U.I., will get $4,392 to use in his attempts to discover how the body handles fatty foods.

Dr. F. C. Coleman, of Des Moines, will receive $400 to finance an investigation of heart disease in the Mercy Hospital staff.

Dr. Charles H. Read, of S.U.I., will receive $4,360 with which to study the effect of vitamin B_6 on hardening of the arteries.

Dr. Robert Linthacum, of Dysart, has been elected president of the Tama County Medical Society, succeeding **Dr. C. R. Roberts,** of Dysart. Other new officers of the Society are **Dr. Harry S. Bezman,** of Traer, vice-president; **Dr. A. J. Havlik,** of Tama, secretary-treasurer; **Dr. C. W. Maplethorpe, Jr.,** of Toledo, censor; and **Dr. C. W. Maplethorpe, Sr.,** of Toledo, delegate.

At a meeting in Hampton on December 17, **Dr. A. P. Smith** was elected president of the Franklin County Medical Society; **Dr. D. K. Benge** was named secretary-treasurer; and **Dr. R. E. Munns** was elected delegate to the Iowa State Medical Society. All of them practice in Hampton. **Dr. W. W. Taylor,** of Sheffield, was named alternate delegate.

Dr. John N. Patterson, 93, a Life Member of the Iowa State Medical Society who has practiced

TAKE A LOOK AT
NEW DIMETANE
THE UNEXCELLED
ANTIHISTAMINE

nearly 68 years, went into semi-retirement on January 1. He closed his office in the Medical Arts Building at Burlington, but will continue to practice from his home.

On December 12, the Calhoun County Medical Society chose **Dr. Paul W. VanMetre**, of Rockwell City, as its president; **Dr. Roy G. Klocksiem**, of Rockwell City, was reelected vice-president; and **Dr. D. E. Conklin**, of Lake City, was named secretary. **Dr. John H. Faust**, of Manson, **Dr. Richard Widman**, of Lake City, and **Dr. William W. Weber**, of Pomeroy, are the censors; **Dr. Charles Wilson**, of Manson, is the delegate; and **Dr. Paul Ferguson**, of Lake City, is the alternate.

A continuing study of chemotherapy in acute leukemia is beginning its second year at the S.U.I. College of Medicine, financed by annual grants of $9,500 from the National Institutes of Health. S.U.I. is one of 17 institutions that are cooperating in the work. **Dr. Henry G. Cramblett**, instructor in pediatrics, is the principal investigator, and **Dr. J. C. MacQueen**, acting head of pediatrics, and **Dr. Samuel J. Fomon**, associate professor of pediatrics, are his collaborators. Grants have been assured through 1960.

Dr. William B. Bean, head of the Department of Internal Medicine at S.U.I., was one of the speakers at the annual meeting of the American Association for the Advancement of Science, at Indianapolis late in December.

In an article in the January 10 issue of the HAWKEYE GAZETTE, one of a series on the topic "What's Best for Burlington," **Dr. George Crow** is quoted at length on ideas for the care of elderly people there. He pointed out that the will of one of Burlington's late residents provided the town enough money for the construction of a good-sized hospital for elderly patients, but not enough both to build and to maintain it. He implied that the bequest might be used for operating St. Francis Hospital when and if it is turned into a gerontological institution.

On January 9, a joint meeting of the Linn County medical and bar associations attracted 175 doctors and lawyers. The guest speaker was **Mr. George E. Hall**, of Chicago, associate general counsel of the AMA.

Early in January, **Dr. Charles V. Edwards, Jr.**, a general practitioner, joined the Cogley Clinic,

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in Council Bluffs, the group with which his father is associated. The younger Dr. Edwards did his pre-med work at Notre Dame, took his M.D. at Creighton and interned at St. Mary's Hospital, Duluth. Recently, he completed 18 months' Navy service, the latter part of it at the officer procurement center in Minneapolis.

Dr. W. B. Phillips, of Montezuma, has received a 15-year award for service to the Poweshiek County draft board.

Dr. Carl H. Matthey, of Davenport, underwent emergency surgery after a fall at his home on January 8. The ladder on which he was standing broke as he was replacing a bulb in a porch light.

Dr. Lester C. Kern, of Waverly, a Life Member of the Iowa State Medical Society, and the man who has driven for him throughout a very great many years escaped serious injury when their car went into a ditch near Readlyn on January 7. Dr. Kern suffered face cuts, and his driver's neck was injured, but sufficient repairs could be made in the office of the doctor to whom they were taken.

Dr. L. H. Jacques, of Iowa City, took over as president of the Johnson County Medical Society on January 8, succeeding **Dr. P. J. Leinfelder. Dr. John R. Maxwell** continued as secretary-treasurer, but **Dr. A. C. Wise** replaced **Dr. L. E. January** as vice-president. During the scientific portion of the meeting, **Dr. Harry B. Weinberg**, a Davenport internist, spoke on "Iatrogenic Heart Disease."

At the newly enlarged Park Clinic, in Mason City, 117 professional people attended a private showing of the facilities on January 4, and 1,500 people came to the formal opening on January 5. The two-story addition contains 27,000 square feet of floor space, and though the medical staff now numbers 16, there is now room for 22 doctors.

Dr. Grace Sawyer, superintendent of the Woodward State Hospital and School, has been named "Woman of the Year" by the American Medical Women's Association. She has served the institution for more than 30 years.

Dr. Francis C. Tucker, a pathologist, left St. Luke's Hospital, Cedar Rapids, on February 1, and moved his practice to Deaconess Hospital, Freeport, Illinois.

Dr. T. E. Shonka reopened his office in Malvern on January 6. In recent years he has had to limit his practice because of poor health.

The new officers of the Boone County Medical Society are **Dr. A. W. Puntenney**, of Boone, president; **Dr. T. K. Leonard, of** Madrid, vice-president; and **Dr. Walter G. Dennert**, of Boone, secretary-treasurer.

Under the joint sponsorship of the Scott County Medical Society and the Iowa Heart Association, **Dr. Oglesby Paul**, clinical associate professor of medicine at the University of Illinois College of

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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Medicine and vice-president of the American Heart Association, will make several appearances in Davenport on Tuesday, February 4. At noon, he will address the Chamber of Commerce; during the afternoon he will participate in televised programs; and at the Outing Club in the evening, he will address a doctors' meeting on "Congestive Heart Failure—Methods of Treatment."

At the annual meeting of the Polk County Medical Society, held at the Des Moines Golf and Country Club on January 15, **Dr. Allan B. Phillips** succeeded **Dr. Byron Merkel** as president; **Dr. Bernard C. Barnes** was chosen as president-elect; **Dr. Don O. Newland** was reelected secretary-treasurer; **Dr. Noble Irving** was elected trustee; and **Dr. John G. Thomsen** was elected councilor-at-large, replacing **Dr. Herman Smith**.

The president of the Iowa State Medical Society, **Dr. Fred Sternagel,** presented 50-Year pins to **Dr. Jeanette Dean-Throckmorton,** librarian of the Iowa State Medical Library, and, *in absentia,* to **Dr. Daniel F. Crowley, Sr.** Dr. Merkel announced that **Dr. Earl D. McClean** and **Dr. Raleigh R. Snyder** had been granted life memberships in the Society.

The guest speaker, **Lt. Col. Philip G. Keil,** from Lackland Air Force Base, San Antonio, spoke on the topic "Our Vertical Frontier." Though he called attention to a number of physiologic problems that need yet to be solved before man can be hurtled very far into super-atmospheric space, he left his hearers with the impression that it is already possible for America to put flyers out there and bring them back. In addition, his remarks concerning America's current "defense posture" were predominantly optimistic.

Dr. Henry H. Gurau, a Des Moines ophthalmologist, recently moved into a more commodious suite of offices, without having to leave the Bankers Trust Building.

Drs. Arnold Smythe, Marion E. Alberts and **James Dickens,** of Des Moines, together with a psychologist and a parent, composed the panel at a discussion of mental retardation sponsored by the Polk County Association for Retarded Children, at the Art Center on January 22.

With the recent death of **Dr. J. H. Sams,** of Clarion, there remain only two living members of the class of 1892 of the S.U.I. medical school. They are **Admiral Charles E. Riggs, U.S.N.,** and **Dr. Walter L. Bierring.**

At the January 14 meeting of the Des Moines County Medical Society, at the Burlington Golf Club, **Dr. G. Chengus** spoke on "Bone Tumors."

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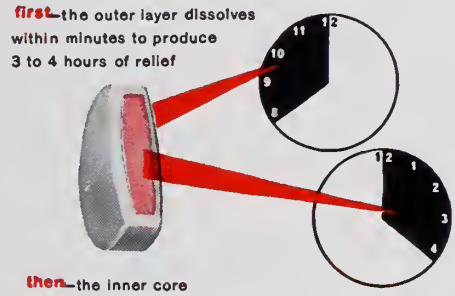
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

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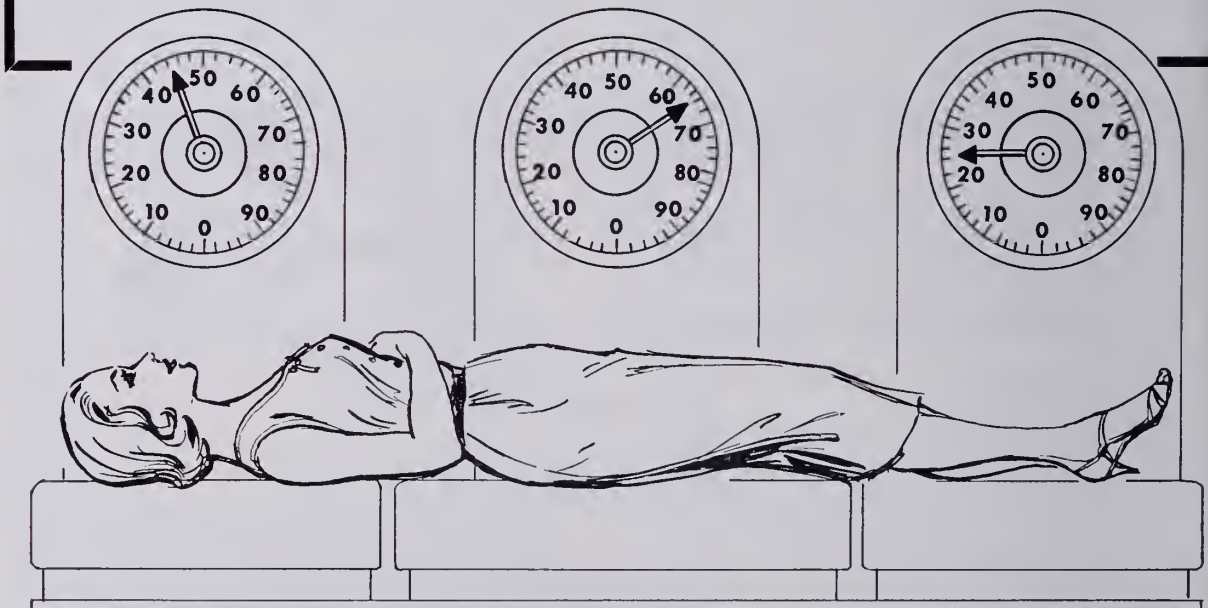
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Dr. L. H. Prewitt, of Ottumwa, will address the Wapello County Medical Society on February 4. His topic will be "Enzymatic Concept in Allergy." At the March 4 meeting, **Dr. Robert G. Carney,** from the Department of Dermatology at S.U.I., will discuss "Dermatologic Treatment, Old and New."

At the meeting of the Black Hawk County Medical Society held at the Elks Club, in Waterloo, on January 21, **Dr. John B. Erich,** of the Mayo Clinic, spoke on "Cosmetic Plastic Surgery of the Head and Neck."

At the annual meeting of the O'Brien County Medical Society, on January 7, **Dr. A. D. Smith,** of Primghar, was elected president; **Dr. L. J. Sweeney,** of Sanborn, vice-president; **Dr. L. H. Mattice,** of Sheldon, secretary-treasurer; **Dr. E. B. Getty,** of Primghar, delegate; and **Dr. Ivan E. Brown,** of Hartley, censor.

The new officers of the Hamilton County Medical Society are **Dr. R. C. Crumpton,** president; **Dr. R. A. Patterson,** vice-president; **Dr. E. F. Brown,** secretary-treasurer; **Dr. George Paschal,** delegate; and **Dr. W. B. McGahey,** alternate. All of them practice in Webster City.

Dr. W. A. Castles, of Dallas Center, has been elected president of the Dallas-Guthrie Medical Society, and **Dr. Herbert Neff,** of Guthrie Center, is the new vice-president, **Dr. C. A. Nicoll,** of Panora, was reelected secretary.

The 1958 officers of the Cerro Gordo County Medical Society are **Dr. Harry Marinos,** president; **Dr. J. E. Christopherson,** vice-president; **Dr. J. R. Utne,** secretary; and **Dr. Robert Brown,** treasurer. The delegates are **Drs. L. W. Swanson, John MacGregor** and **Sidney Brownstone** and the alternates are **Drs. J. W. Lannon, G. J. Sartor** and **Harold Morgan.** Dr. Brownstone practices at Clear Lake, and the others, at Mason City.

The newly elected officers of the Fayette County Medical Society are **Dr. Robert S. Jaggard,** president; **Dr. John P. Gallagher,** vice-president; and **Dr. Darwin B. Jack,** secretary-treasurer. All of them practice in Oelwein.

The following officers for 1958 have been elected by the Hancock-Winnebago Medical Society: **Dr. J. T. Mangan,** Forest City, president; **Dr. J. T. Enggas,** Britt, vice-president; **Dr. J. O. Moermond,** Buffalo Center, secretary-treasurer; **Drs. T. J. Irish,** Forest City, and **D. F. Shaw,** Britt, delegates; and **Drs. M. W. Safely,** Forest City, and **J. R. Camp,** Britt, alternates.

The Pottawattamie County Medical Society is to see a scientific film on hypothyroidism at its meeting in the Hotel Chieftain, in Council Bluffs, on February 18.

At the meeting of the Linn County Medical Society that will be held in the Montrose Hotel in Cedar Rapids at 6:30 p.m., on February 13, **Dr. Edward Compere,** of Chicago, will speak on "Newer Treatments in Orthopedic Surgery."

The speakers at the meeting of the Woodbury County Medical Society on January 23, in Sioux City, included **Dr. Fred Sternagel,** president of the Iowa State Medical Society; **Dr. F. C. Coleman,** chairman of the Committee on Legislation; Mr. W. H. Sherin, executive director of Blue Shield; and Mr. Don Taylor, executive secretary of ISMS.

Coming Meetings

(Continued from page 96)

Mar. 24-27	**Congress of International Anesthesia Research Society.** New Orleans
Mar. 24-27	**Pediatrics.** U. of Washington, Seattle
Mar. 24-28	**Surgery of Trauma.** Stanford U., San Francisco
Mar. 24-28	**Anesthesiology: Endotrachial & Related Methods.** N.Y.U., N.Y.C.
Mar. 24-28	**Pulmonary Function in Health and Disease (American Trudeau Society).** Boston City Hospital, Boston
Mar. 24-28	**Pathology of the Oral Regions.** Armed Forces Institute of Pathology, Washington, D. C.
Mar. 24-28	**Pulmonary Diseases.** U. of Michigan, Ann Arbor
Mar. 24-28	**Radiology.** U. of Tennessee, Memphis
Mar. 24-29	**Anesthesia.** U. of Buffalo, Buffalo
Mar. 24-29	**Surgery of the Eye, for Specialists.** N.Y.U., N.Y.C.
Mar. 24-Apr. 5	**Otolaryngology.** Indiana U., Indianapolis
Mar. 24-Apr. 5	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Mar. 24-May 2	**Military Application Course for Nuclear Medical Officers.** Walter Reed Army Medical Center, Washington, D. C.
Mar. 25-29	**Annual Meeting, American College Health Association.** Ambassador Hotel, Los Angeles
Mar. 26	**Eleventh Annual Cancer Symposium.** U. of Indiana, Indianapolis
Mar. 26-28	**Diagnosis and Treatment of Surgical Heart Disease.** City of Hope, Duarte, Calif.
Mar. 27	**Obstetrics (U. of Nebraska).** Lincoln
Mar. 28-29	**Edema (U. of Southern California).** Hotel Statler, Los Angeles
Mar. 29	**Children's Hospital Medical Seminar.** U. of California, San Francisco
Mar. 29-30	**Fifteenth Annual Meeting, American Psychosomatic Society.** Netherland Hilton Hotel, Cincinnati
Mar. 31-Apr. 2	**Surgery in Acute Trauma.** Letterman Army Hospital, San Francisco
Mar. 31-Apr. 4	**Clinical Neurology (Columbia U.).** Mt. Sinai Hospital, N.Y.C.
Mar. 31-Apr. 4	**Clinical Use of Radioactive Iodine.** Cook County Graduate School of Medicine, Chicago
Mar. 31-Apr. 4	**Metabolism & Endocrinology.** U. of Michigan, Ann Arbor
Mar. 31-Apr. 4	**Ophthalmic Plastic Surgery, for Specialists.** N.Y.U., N.Y.C.
Mar. 31-Apr. 4	**Ophthalmology.** Stanford U., San Francisco
Mar. 31-Apr. 5	**Audiology.** Northwestern U., Chicago
Mar. 31-Apr. 18	**Physical Rehabilitation Methods for Nurses.** N.Y.U., N.Y.C.



Hospital practice of infant feeding

Standard formulas for NEWBORNS

Breast feeding is the procedure of choice for the newborn. But it may need to be complemented with standard formulas given here.

The first feeding, 12 hours after birth, consists of a prelacteal solution of 5% Karo Syrup, one or two ounces, repeated at two-hour intervals. Breast feeding is started on the second day for five-minute intervals and the prelacteal feeding continued immediately thereafter and between nursings.

Formula feeding is given on the second day if breast feeding is denied. The small infant prefers the three-hour schedule and the large infant the four-hour schedule.

The initial formula is a low-caloric milk mixture, gradually increased in concentration over several day intervals according to tolerance. Standard formulas for whole cow's milk or evaporated milk modified with diluted Karo Syrup as shown here, constitute the dietary regimen for well newborns.

First formulas for newborns, concentrated according to tolerance

Evaporated Milk Formulas: 3 oz. q 4h x 6 feedings

	FORMULA I	FORMULA II	FORMULA III
	12.5 cals./oz.	16 cals./oz.	20 cals./oz.
Evap. Milk	4 oz	5 oz.	6 oz.
Water	14 oz.	13 oz.	12 oz.
Karo Syrup	1/2 oz.	3/4 oz.	1 oz.

Whole Cow's Milk Formulas: 3 1/2 oz. q 4h x 6 feedings

	FORMULA I	FORMULA II	FORMULA III
	11 cals./oz.	11.5 cals./oz.	13.5 cals./oz.
Whole Milk	8 oz.	9 oz.	10 oz.
Water	12 oz.	11 oz.	10 oz.
Karo Syrup	1/2 oz.	3/4 oz.	1 oz.

ADVANTAGES OF KARO IN INFANT FEEDING



Composition: Karo is a superior maltose-dextrin mixture because the dextrins are non-fermentable and the maltose is rapidly transformed into dextrose which requires no digestion.

Concentration: Volume for volume Karo furnishes twice as many calories as similar milk modifiers in powdered form.

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2 Of great importance to the practicing physician is the consistency of the blood level enhancement achieved with glucosamine. Extensive tests show that the enhancing effect with glucosamine occurs in a greater percentage of cases than with any other agent screened.

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"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris. Circulation (Jan.) 1958.

*'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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DEATHS

Dr. Merrill O. Eiel, 54, who had practiced at Osage since 1935, died there on December 14, following a coronary occlusion.

Dr. Howard Daniel Fallows, 74, a Life Member of the Iowa State Medical Society and an EENT specialist in Mason City for 45 years, died at Tucson, on December 27, following a heart attack. He and his wife were there on a vacation trip.

Dr. William Lloyd Stewart, 71, of Mediapolis, died on December 27 at a Burlington hospital, two days after suffering a stroke. In a few more days, he would have received recognition for completing 50 years of medical practice.

Dr. Wayland H. Maloy, 61, died at Shenandoah on December 20, after a long illness.

Dr. Joseph Henry Sams, 91, of Clarion, a Life Member of the Iowa State Medical Society who had practiced medicine for 60 years and for eight years beginning in 1902 had been a member of the State Board of Health, died on December 31 at the hospital there.

Dr. James Horatio O'Donoghue, 90, who practiced medicine at Storm Lake until 1952, died at a Council Bluffs hospital on January 7 after a protracted illness.

Dr. Edward John Harnagel, 76, a surgeon who practiced 45 years in Des Moines, died of cancer at his home on January 7 after a five-months illness.

Dr. Arthur Edwin Beyer, 84, who practiced at Guttenberg for 46 years until he retired in 1946, died at his home on December 23.

Dr. Sophie Hinze Scott, 87, of Des Moines, a Life Member of the Iowa State Medical Society, died of pneumonia on January 6.



1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

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SUICIDES, TRUE AND INCIDENTAL

The distinction between a suicide and an attempted suicide should be based on the intent rather than on the outcome of the act, three Yale psychiatrists have declared.*

They believe that an attempted suicide is not really an effort to die. Rather, the person has hoped to bring about a change in his life through the effect of the attempt upon the people around him.

Even if the individual brought about his own death, the act ought still to be interpreted as an attempted suicide, for the effect that he desired was something other than death.

A suicide, according to Drs. Robert Rubenstein, Rafael Moses and Theodore Lidz, is an act in which the only "desired effect" is death. Although the person fails to kill himself, his act would still be a suicide, for he desired only death.

The distinction between an attempted suicide and a suicide is useful in deciding how to treat persons who seem to have tried to kill themselves, for in some instances one can help them to secure the desired change in their relatives' and friends' attitude, and can gauge the degree of surveillance which is likely to be necessary.

The Yale professors studied 44 persons who had been brought to the New Haven Hospital emergency room after they had attempted suicide. Only eight of them, it was decided, had desired no other effect than their own death. Seven of these were hospitalized, seven were diagnosed as psychotic, and all eight had made relatively severe attempts to kill themselves, judged on the basis of place and method of the attempt.

For each of the remaining 36, some "desired effect" could be found. In 34 instances, immediate changes were brought about as a result of their attempted self-destruction, and only 11 of them were hospitalized for treatment.

The doctors found a characteristic sequence of events that had culminated in the achievement of the patients' "desired effects." The patient was involved in a struggle with the persons most important to him, and sought changes in their attitudes or his relationships with them. After a crisis had been reached in this struggle, the pa-

* Rubenstein, R., Moses, R., and Lidz, T.: "On attempted suicide." AMA Arch. Neurol. & Psychiat., 79:103-112, (Jan.) 1958.

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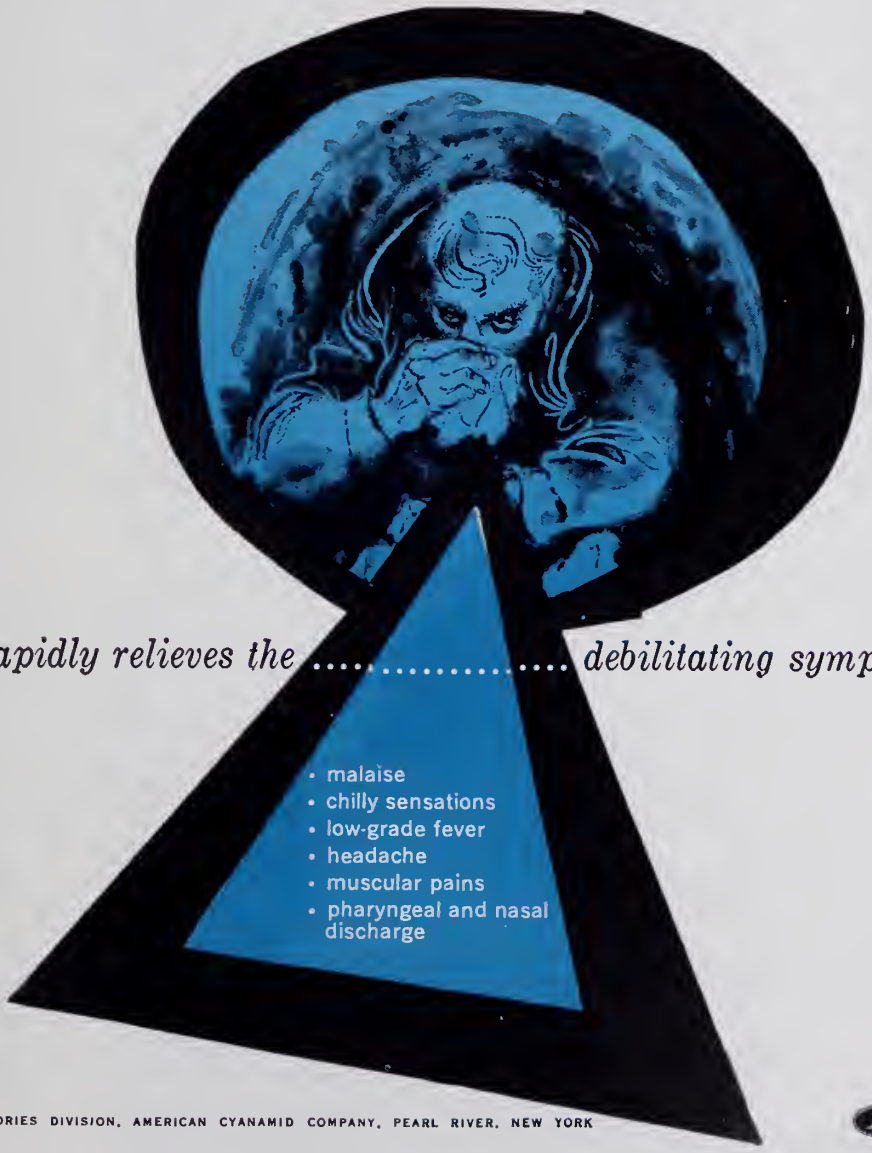
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Treatment of Varicose Veins, April 7, May 5
Gallbladder Surgery, Three Days, March 31
Surgery of Hernia, Three Days, April 3
General Surgery, Two Weeks, May 5; One Week, May 12
Fractures & Traumatic Surgery, Two Weeks, March 17
Breast & Thyroid Surgery, One Week, May 5

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, March 17
Vaginal Approach to Pelvic Surgery, One Week, April 28
General & Surgical Obstetrics, Two Weeks, March 31

MEDICINE—General Review Course, Two Weeks, May 12
Electrocardiography & Heart Disease, Two Weeks, March 17
Hematology, One Week, June 2
Gastroenterology, Two Weeks, April 14

PEDIATRICS—Two-Week Intensive Course, April 21

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, April 28
Clinical Uses of Radioisotopes, Two Weeks, May 5

UROLOGY—Two-Week Intensive Course, April 14
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tient sought these changes through a suicide attempt.

The attempts ranged in severity from the case of a woman who had faked an attempt with the knowledge that she would be discovered and rescued in plenty of time, to a man who drove 200 miles, locked himself in a hotel room and shot himself in the head. The first was obviously no more than an attempt aimed at effecting a change in the family's attitude. The second was as genuine as it was successful, for the man had taken every precaution to avoid being stopped by his family and friends. He wanted only death.

GAUGING A CHILD'S EMOTIONAL MATURITY

A child's response to the administration of a "shot" is a good clue to his emotional maturity, Dr. Karl E. Kassowitz, a Milwaukee pediatrician, has pointed out in an article in the January, 1958, AMA JOURNAL OF DISEASES OF CHILDREN. A study of 133 children ranging from tiny babies to 12-year-olds who underwent 328 "shots," showed changing responses as they grew older. During the first six months of life, they exhibited no emotional response. From then until the end of the first year, there was the greatest amount of "more or less violent fear and resentment." From the fifth year on, there was a steady decline in fighting. After the eighth birthday, fighting became exceptional behavior, and self-control reflecting pride in being able to "take it" became the rule.

Lack of self-control after the age of eight or nine years, in this particular situation, can be considered a clue to an underlying emotional disturbance, Dr. Kassowitz said.

CANCER SOCIETY WITHDRAWS FROM COMMUNITY CHESTS

At a special meeting in January, the Board of Directors of the Iowa Division, American Cancer Society, decided to withdraw immediately from participation in all community chests and united funds. In areas served by such groups, the organization plans to put on no fund-raising campaign between now and April, 1959, when solicitations will take place during a Cancer Week proclaimed by the President of the United States.

In taking this action, the Iowa Division is following a pattern set by the National Board of Directors of the American Cancer Society. Its principal reasons are that it can collect more money through separate campaigns, it can remain free from outside budgetary control, and it can have its solicitors propagandize cancer-detection examinations as they ask for contributions.

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Offers maximum antimicrobial action at the earliest possible moment. The antibiotic preparation of first resort in pneumonia of unknown etiology, carbuncles, multiple furunculosis, cellulitis, and infections resistant to previous therapy

for the 7 monilia-susceptible types
...tetracycline phosphate plus nystatin

COMYCIN

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1. PANMYCIN PHOSPHATE IN COMMON MIXED INFECTIONS

USUAL DOSAGE: ADULTS: 250 mg. every 6 hours or 500 mg. every 12 hours. CHILDREN Approximately 8 mg. per pound of body weight daily, in four equally divided doses every 6 hours, or two equally divided doses every 12 hours.

SUPPLIED: CAPSULES: 250 mg. in bottles of 16 and 100; 125 mg. in bottles of 25 and 100.

PANMYCIN KM SYRUP: Each teaspoonful (5 cc.) contains tetracycline equivalent to 125 mg. tetracycline hydrochloride, and potassium metaphosphate, 100 mg., mint flavor, in 2 fluidounce and pint bottles.

2. PANALBA IN POTENTIALLY SERIOUS INFECTIONS

USUAL DOSAGE: ADULTS: 1 or 2 capsules three or four times a day, depending on the type and severity of the infection. CHILDREN Proportionately less.

SUPPLIED: Each powder-blue-and-brown capsule contains Panmycin (tetracycline) Phosphate complex equivalent to 250 mg. tetracycline hydrochloride, and Albamycin (as novobiocin sodium) 125 mg.; in bottles of 16 and 100.

Also available: **PANALBA KM GRANULES** (Pediatric). When reconstituted, each 5 cc. teaspoonful contains Panmycin equivalent to tetracycline hydrochloride, 125 mg. and Albamycin (as novobiocin calcium) 62.5 mg., and potassium metaphosphate 100 mg.; in pleasantly flavored vehicle. Dosage is based upon amount of tetracycline—6 to 8 mg. per pound of body weight per day in 2 to 4 equally divided doses.

3. COMYCIN FOR THE 7 MONILIA-SUSCEPTIBLE TYPES

USUAL DOSAGE: ADULTS: 1 or 2 capsules every 6 hours. CHILDREN: Proportionately less.

SUPPLIED: Each brown-and-pink capsule contains tetracycline phosphate complex, equivalent to 250 mg. tetracycline hydrochloride; nystatin 250,000 units. In bottles of 16 and 100.

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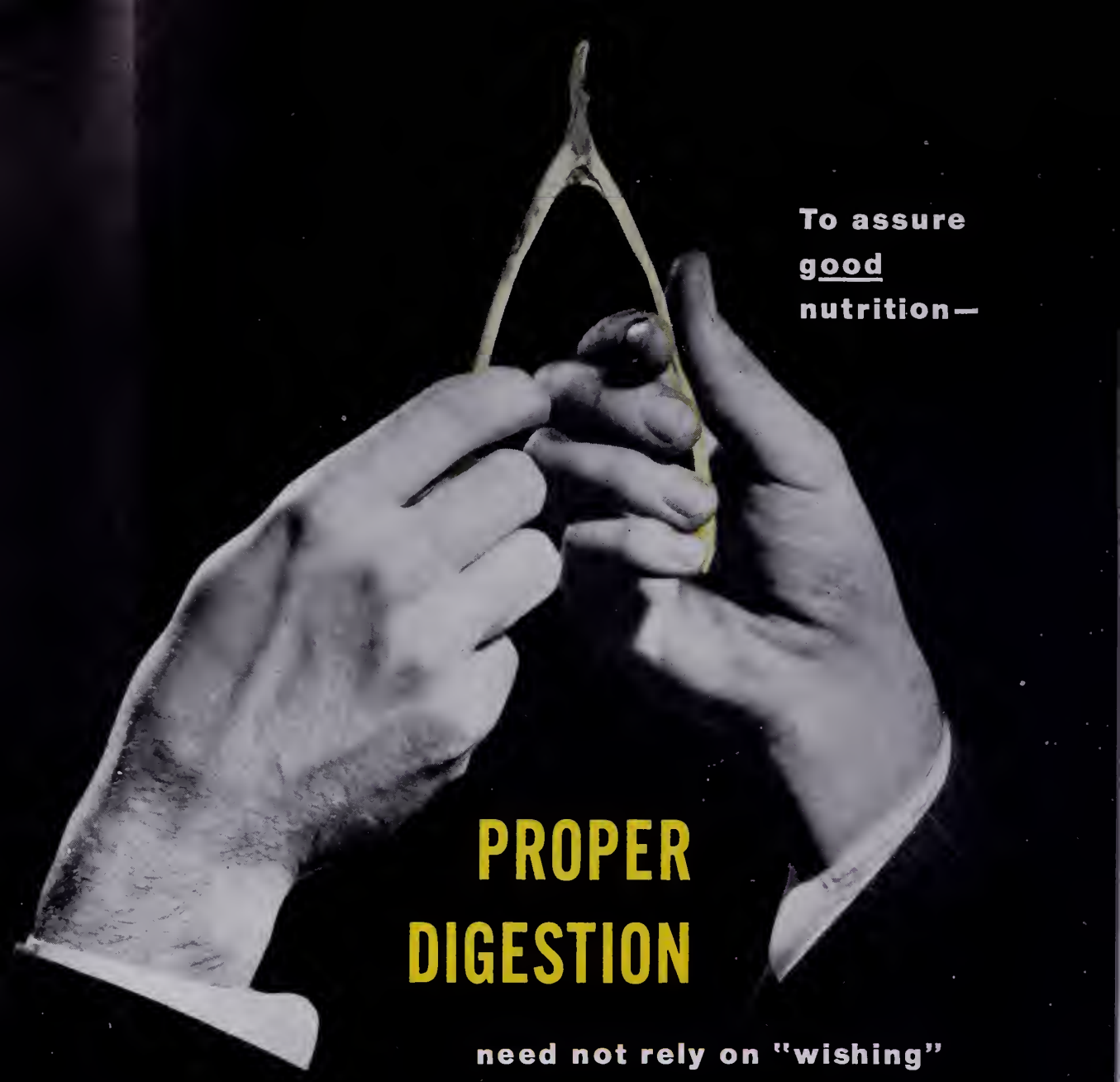
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POSTGRADUATE COURSES AT KANSAS CITY

During the last week in February, two postgraduate courses are to be offered at the Medical Center of the University of Kansas, in Kansas City, Kansas. The fee for each of them is $30. AAGP members can earn full Category I credit by attending these sessions.

On February 24 and 25, the subject will be "Acute Coronary Occlusion." Emphasis will be placed on problems confronting the physician during the first 24-hour period following the occlusion. Five nationally recognized clinicians and teachers are to take part in the discussions: Ernest Craige, M.D., associate professor of medicine at the University of North Carolina; J. Willis Hurst, M.D., professor of medicine, Emory University; Gordon S. Myers, M.D., Clinical professor of medicine at Harvard; Oglesby Paul, M.D., clinical associate professor of medicine at the University of Illinois; and Edwin O. Wheeler, M.D., associate in medicine at Harvard.

On February 26 and 27, in the course on "Neurology and Neurosurgery," the neurologic examination, trauma to the nervous system, geriatric neurology and pediatric neurology will be considered. The guest instructors will include: Eben Alexander, Jr., M.D., professor of neurosurgery at the Bowman Gray School of Medicine, Wake Forest College; Sidney Carter, M.D., associate professor of clinical neurology at Columbia; and James W. Stephens, M.D., associate professor of neurology at the University of Colorado.

SKIN-PLANING REMOVES FINGERPRINTS

Fingerprints, always considered a permanent and unalterable physical characteristic, can be completely removed by the surgical technic of skin-planing, according to a New Orleans doctor.* In a preliminary report published in the AMA ARCHIVES OF DERMATOLOGY, Dr. James W. Burks, Jr., of Tulane, says he treated two men with horny growths on the hands caused by arsenic. In doing so, he planed off the epidermis and a part of the dermal layer from their fingers. Weeks afterward, the fingertips were smooth, slightly pinker than before, and completely lacking in visible ridges.

A hand lens showed that the normal arrangements of whorls had been replaced by minute, thin, criss-crossed and parallel lines similar to those on the dorsal surface of the web between the thumb and the index finger.

Dr. Burks warned dermatologists that they must guard against obliging criminals who seek merely to have their fingerprints removed. He pointed out, however, that during the foreseeable future so few individuals will lack fingerprints that their very absence may serve as a more or less satisfactory way of identification.

* Burks, J. W., Jr.: Effect of dermabrasion on fingerprints. AMA Arch. Dermatol., 77:8-11, (Jan.) 1958.



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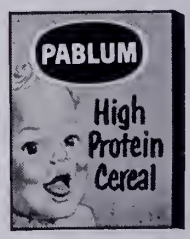


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CONFERENCES ON ATHLETIC INJURIES

In at least three Midwestern states, during 1957, coaches and doctors got together to discuss the prevention and/or treatment of athletic injuries. In some instances, the meetings were held at the invitation of county medical societies.

More than 100 coaches and school administrators attended the Racine County (Wisconsin) Medical Society's injury clinic. Fifty doctors participated, and representatives of the press came to take tabs on what was said.

"We expect, at least once a year, to have a program of this type with some lay group, to cover a variety of subjects such as injuries in the home, accidental poisoning, industrial accidents and the like," Dr. Robert H. Lehner, society president, said after observing the success of the clinic.

In Dayton, Ohio, the Montgomery County Medical Society held a pre-football-season conference on August 17 that was attended by 85 per cent of the coaches in the area. Mr. Jay Coville, a trainer at the 1956 Olympics, was the featured speaker. The conference also gave local coaches a chance to look over protective devices and new equipment exhibited by distributors as part of the clinic.

Over 700 coaches attended a state-wide conference that the Indiana State Medical Association called on October 24. In preparation for the meeting, officials of the Association had met previously at a luncheon with high school and college athletic association officials. There, the doctors outlined their ideas and heard suggestions from the guests. "We let them select the date and obtain their full cooperation in publicizing the meeting and in mailing information and invitations to all their members," Executive Secretary Jim Waggener reports.

Publicity on the clinic was widespread, for each coach was given a news release to take home to his local paper.

After a heavy schedule of scientific talks during the one-day session, Mr. Lou Little, formerly the football coach at Columbia University, reminisced about some of his experiences.

Later, the coaches turned in questionnaires on their opinions of the clinic. Without exception, they requested other such meetings, either annually or biennially. Commented Mr. L. V. Phillips, commissioner of the Indiana High School Athletic Association: "We owe the medical profession of Indiana a rousing expression of thanks."

REGIONAL RABIES CONFERENCE

The Great Lakes Regional Rabies Conference, at the LaSalle Hotel, Chicago, on February 19 and 20, will provide physicians an opportunity to gain up-to-date information on all aspects of this human and animal problem. Reports will be presented by representatives from Illinois, Indiana, Iowa, Ohio, Michigan, Wisconsin and Minnesota. Reservations should be made promptly with Edward C. Khuen, D.V.M., 130 N. Wells Street, Chicago 6.

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"Cardiac patients who show significant manifestations of anxiety should receive ataractic treatment as part of the therapeutic approach to the cardiac problem."[1]

1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. *8*:1075 (July) 1957.

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 1:15 p.m.

"SIXTEEN—GROWING UP"

February 6 ..... Boy Meets Girl
February 13 ..... Mama's Boy, Daddy's Girl
February 20 ..... The Gang
February 27 ..... Social Responsibility

WSUI—Iowa City, Iowa
Monday at 3:30 p.m.

"GOLD MEDAL DOCTORS"

February 3 ..... Henry A. Christian, M.D.
February 10 ..... Isaac Abt, M.D.
February 17 ..... Searle Harris, M.D.
February 24 ..... Evarts A. Graham, M.D.

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

February 5 ..... The Rh Factor
February 12 ..... Radioactive Diagnosis and Treatment
February 19 ..... Intervertebral Disc
February 26 ..... Aid for the Handicapped

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

February 2 ..... Religion and Health
February 9 ..... Rupture
February 16 ..... The Rh Factor
February 23 ..... Radioactive Diagnosis and Treatment

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

February 2 ..... Hospital Emergency Care
February 9 ..... High Blood Pressure
February 16 ..... Baby Care
February 23 ..... The Rh Factor

WOI-TV—Ames, Iowa
Saturday at 10:00 a.m.

February 1 ..... Abdominal Pain
February 8 ..... Infertility
February 15 ..... Blood Bank
February 22 ..... Menopause

The foregoing schedules are subject to change at the discretion of the station managers.

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1 or 2 tablets.
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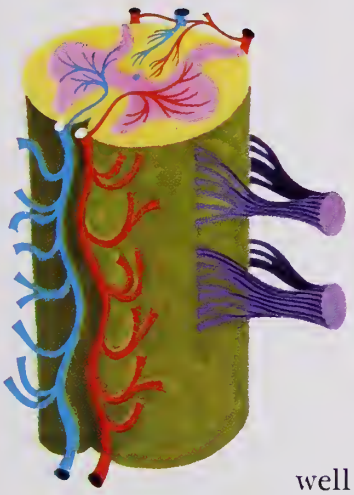
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INFANT FORMULAS

Infant formulas need not be prepared every day, ays Dr. H. K. Silver, of the Department of Pedi- trics at the Colorado University School of Medi- ine.* If properly heated, cooled and refrigerated, hey are bacteriologically safe for at least two or hree days.

He points out that each year more than 3,000,000 nothers spend from a half hour to an hour every lay preparing and heating infant formulas. From a study of home methods of formula preparation, ie concludes that a saving of time is possible.

In one series of experiments, inadequately leaned equipment was used. It was found that no nethod of terminal heating can kill bacteria im- bedded in the scum or ring of milk in a bottle, nip- ple, bottle cap or nipple cover. "Thus there would appear to be no substitute for adequate cleaning of all equipment used in preparing infant formulas."

He recommends that chemical detergents be used in cleaning, rather than soap, "since soap forms a gummy residue with milk casein which may be difficult to remove. . . . Detergents tend to avoid this difficulty.

The ingredients making up the assembled for- mula units should be boiled actively for 25 minutes in a metal container with a close-fitting cover and enough water to bring the level of the water to the top of the milk mixture," Dr. Silver continued.

Rapid cooling immediately following terminal heating is another factor assuring bacteriologically safe formulas. The studies showed that formulas kept at room temperature for periods greater than six hours "may permit the growth of spore-form- ing bacteria which were initially present in the formula, in spite of terminal heating."

Dr. Silver therefore recommends that the for- mula be cooled by placing the bottles in circulat- ing cold water and that the bottles be agitated from time to time. "This has the further advantage of reducing the amount of milk skum which some- times forms during the cooling process and may clog nipple openings," he added.

As soon as the formula has been cooled, it should be refrigerated at 40°F. and stored at that tempera- ture until the mother is ready to use it. Keeping the formula at this temperature "prevents the mul- tiplication of any heat-resistant organisms which may have survived the heating operation."

* Silver, H. K.: Sterilization and preservation of formulas for infants. Pediatrics, 20:992ff., (Dec.) 1957.

NATIONAL VD CONFERENCE

The 27th Annual National VD Postgraduate Conference for physicians will be held at Hous- ton, on April 23-25. Members of AAGP can earn 20 hours of credit by attendance. No tuition will be charged, but from those desiring Category I credit, a $5 fee will be collected. Applications should be sent to Dr. Grant Taylor, University of Texas Postgraduate School of Medicine, Houston.



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(Additional Want Ads on page lxvi)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

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WANTED: Associate in general practice. Northeast Iowa town of 5,000; new office fully equipped; local hospital. Good salary to start and partnership after first year. Address: No. 1,074, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

GUARANTEED used x-ray equipment of all sizes and makes. Write us your needs and preference, and we will mail you information. Address No. 1,024, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

FOR SALE: Complete medical equipment and furnishings. If location is desired, the office is available for rental. Town with over 70,000 population. Address: Mrs. A. J. Staudt, 605 Black Bldg., Waterloo, Iowa.

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WANTED: Pediatrician, board certified or board eligible, by small group in city of 50,000 in northeastern Iowa. Excellent salary, unlimited opportunity. Address: No. 1,063, Journal of the Iowa State Medical Society, 529 36th Street, Des Moines 12, Iowa.

FOR SALE: Farm that belonged to the late Dr. E. B. Williams, six miles from Montezuma. Consists of 160 acres of highest quality tilled land; farm buildings in excellent condition; paved feeding lots; deep well. House is especially well built; oil heat. Tenant has partnership arrangement; the property has always been profitable, even during the last three years. Address Mrs. A. W. Allely, Montezuma, Iowa.

PHYSICIAN WANTED for southern Minnesota town of 800. Address: Grand Meadow Health Association, Grand Meadow, Minnesota.

OFFICE SPACE (5 rooms), equipment and housing available in Monona, Iowa. See Gilbert Fox, Fox Pharmacy, Monona.

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WANTED: Doctor or partnership to locate in central Iowa town. Modern office available; hospitals nearby. Good opportunity. Area short of physicians. Address: Raymond Karsjens, secretary, Community Club, Steamboat Rock, Iowa.



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FOR SALE: General Practitioner's instruments and reception-room and examining-room furniture. Address: No. 1027, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

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*Murray, R. J.: N. Y. State Jl. Med. 53:1867, 1953.

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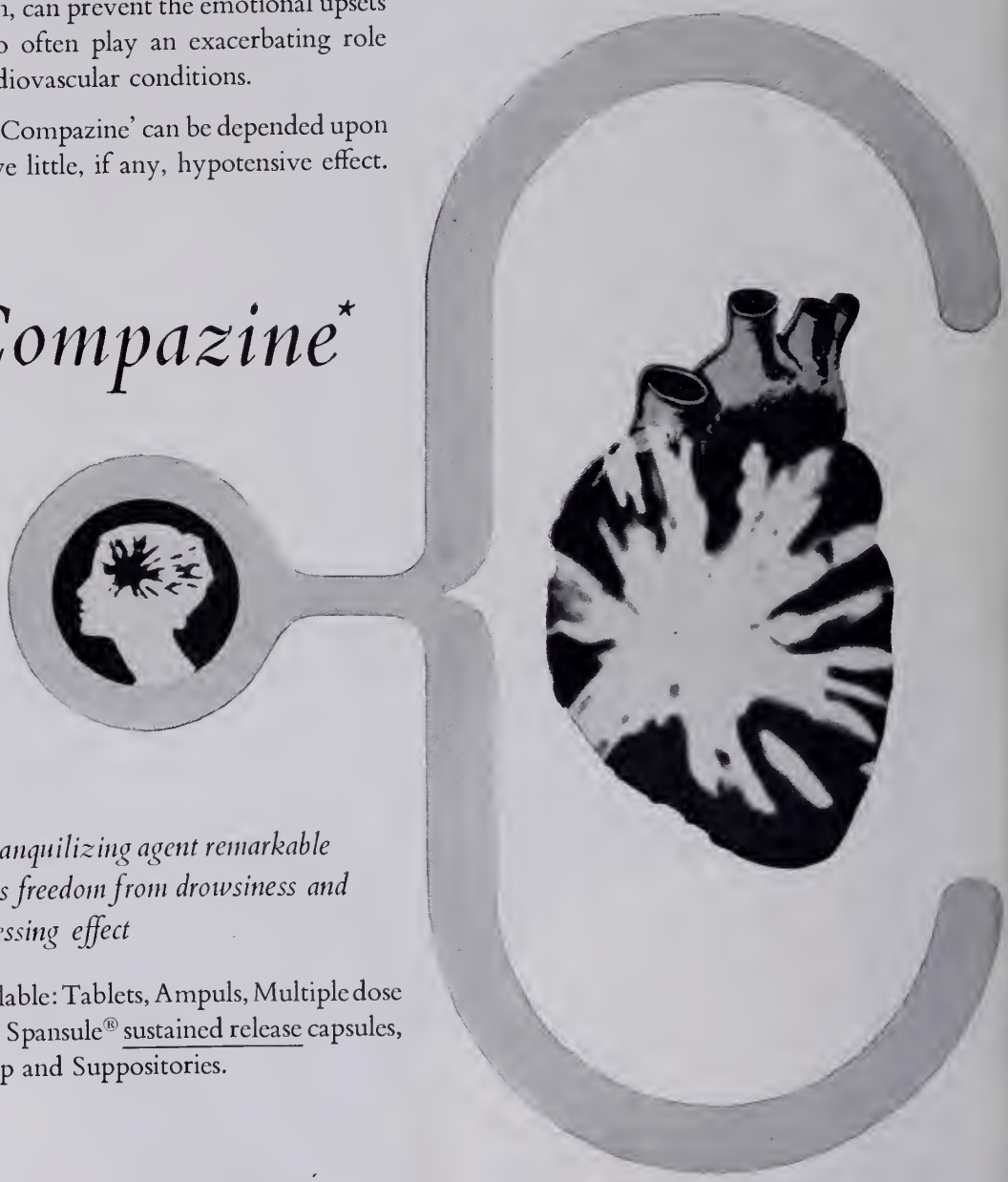
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1. Zimmerman, F. T., and Burgemeister, B.: *Arch. Neurol. & Psychiat.* 72:720, 1954.
2. Zimmerman, F. T., and Burgemeister, B.: J.A.M.A. 157:1194, 1955.
3. Zimmerman, F. T.: *Arch. Neurol. & Psychiat.* 76:65, 1956.



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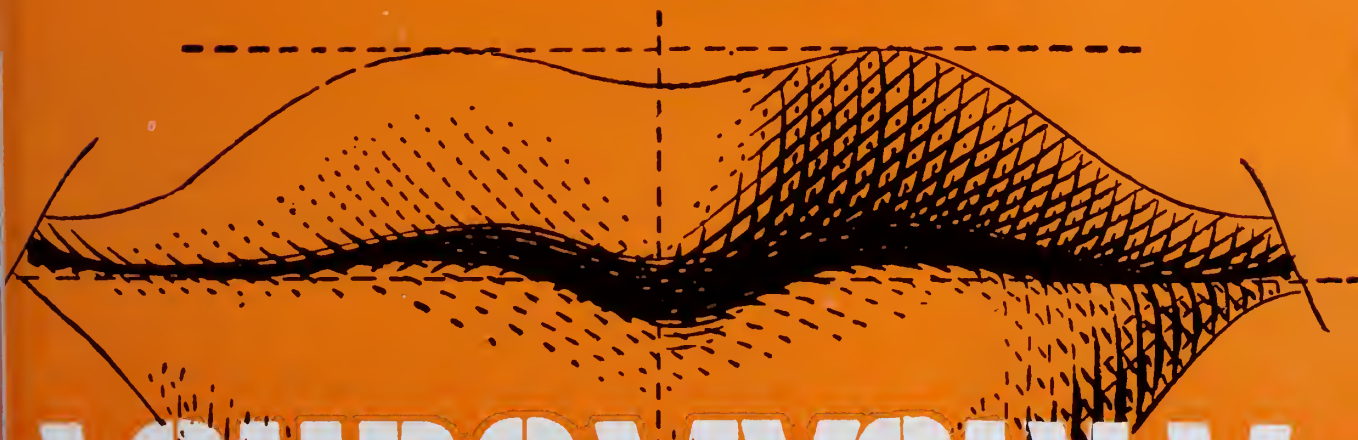
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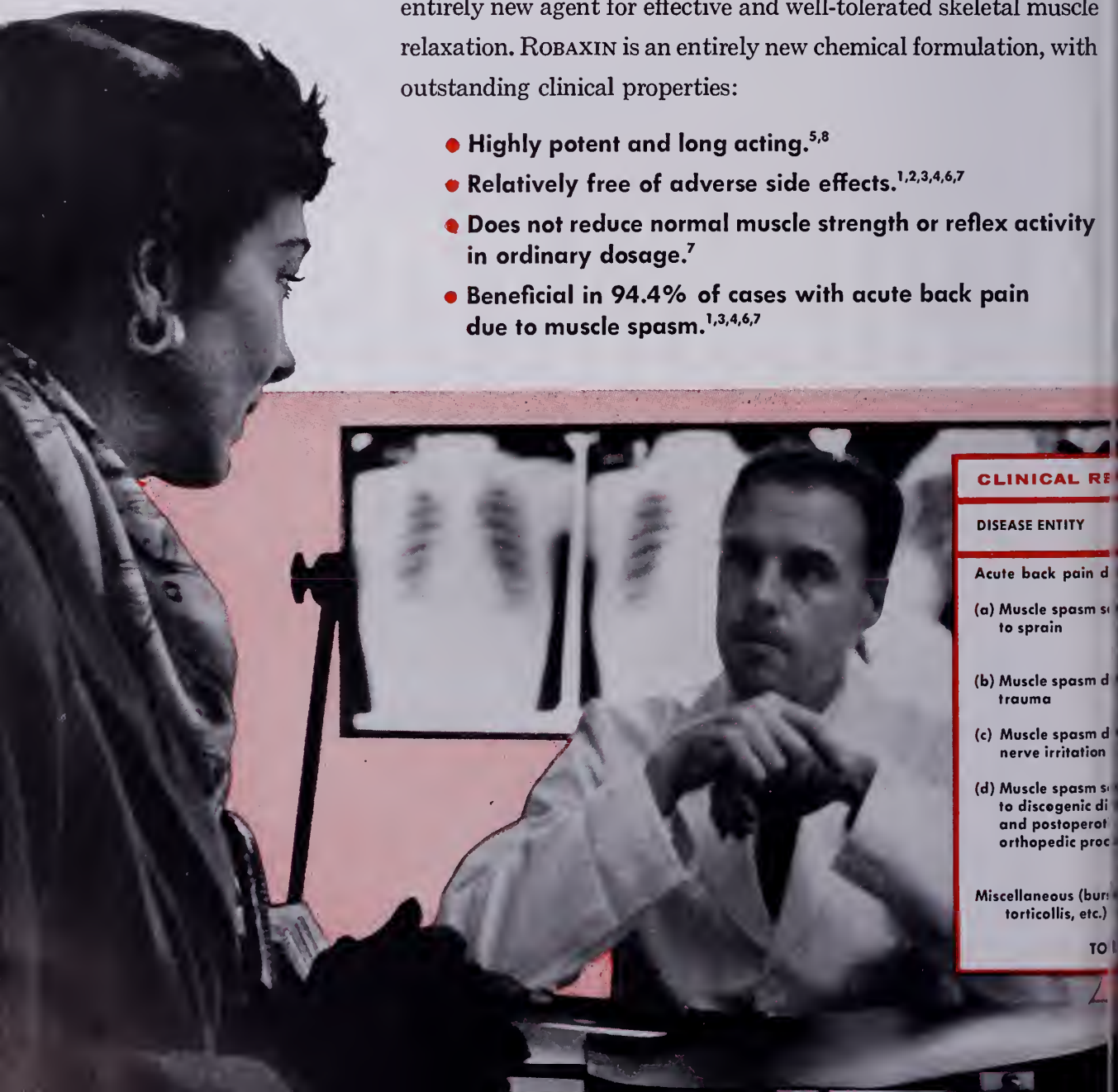
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		59	6	3	4	*Relieved on reduction of dose

References: 1. Carpenter, E. B.: Publication pending. 2. Carter, C. H.: Personal communication. 3. Forsyth, H. F.: Publication pending. 4. Freund, J.: Personal communication. 5. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: American Pharm. Assn. 46:374, 1957. 6. Nachman, H. M.: Personal communication. 7. O'Doherty, D.: Publication pending. 8. Truitt, E. B., Jr., and Little, J. M.: J. Pharm. & Exper. Therap. 119:161, 1957.

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more potent and comprehensive treatment than salicylate alone

. . . assured anti-inflammatory effect of low-dosage corticosteroid[1]

. . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function.

. . . wide range of applicati including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more manageable corticosteroid dosag

. . . much less likelihood of treatment-interrupti side effects[1-6]

. . . simple, flexible dosage schedule



in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

te conditions: Two or three
ets four times daily. After
red response is obtained,
lually reduce daily dosage
then discontinue.
acute or chronic conditions:
ally as above. When satisfactory
rol is obtained, gradually reduce
daily dosage to minimum
ctive maintenance level. For best
ilts administer after meals and
edtime.
cautions: Because SIGMAGEN
tains prednisone, the
e precautions and
traindications observed
this steroid apply also
he use of SIGMAGEN.

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

SCHERING CORPORATION • BLOOMFIELD, N. J.

60-J-648

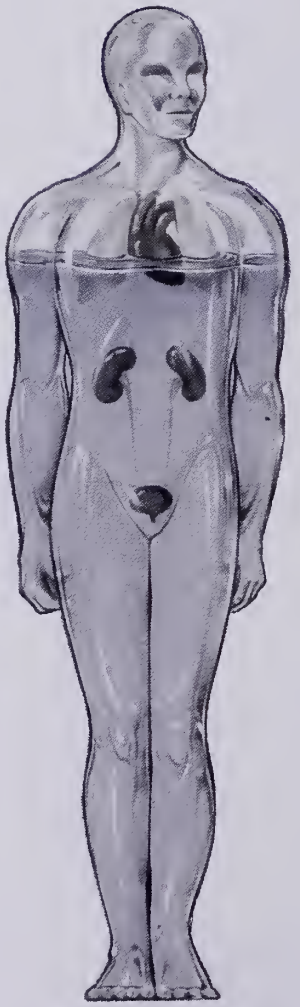
Schering

'DIURIL'

(CHLOROTHIAZIDE)

in

EDEMA



Start therapy with one or two 500 mg. tablets of 'DIURIL' once or twice a day.

BENEFITS:

- The only orally effective nonmercurial agent with diuretic activity equivalent to that of the parenteral mercurials.
- Excellent for initiating diuresis and maintaining the edema-free state for prolonged periods.
- Promotes balanced excretion of sodium and chloride—without acidosis.

Any indication for diuresis is an indication for 'DIURIL':

Congestive heart failure of all degrees of severity; premenstrual syndrome (edema); edema and toxemia of pregnancy; renal edema—nephrosis; nephritis; cirrhosis with ascites; drug-induced edema. May be of value to relieve fluid retention complicating obesity.

SUPPLIED: 250 mg. and 500 mg. scored tablets 'DIURIL' (chlorothiazide); bottles of 100 and 1,000.

'DIURIL' and 'INVERSINE' are trade-marks of Merck & Co., Inc.

MSD MERCK SHARP & DOHME

Division of MERCK & CO., INC., Philadelphia 1, Pa.

as simple
as 1-2-3
in

HYPERTENSION

1 INITIATE 'DIURIL' THERAPY
'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

2 ADJUST DOSAGE OF OTHER AGENTS
The dosage of other antihypertensive medication (reserpine, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

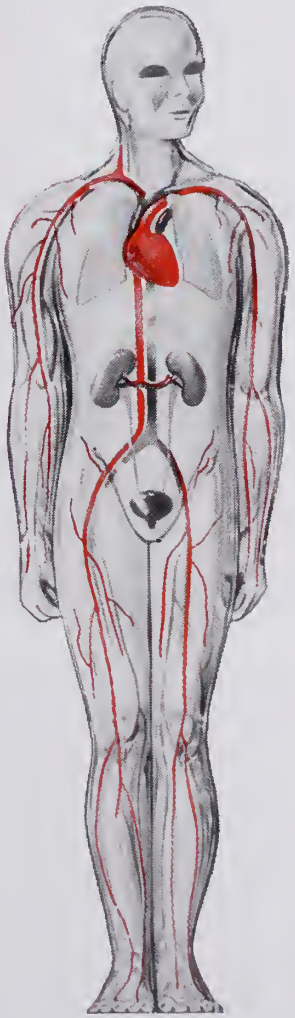
3 ADJUST DOSAGE OF ALL MEDICATION
The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

BENEFITS:

- improves and simplifies the management of hypertension
- markedly enhances the effects of antihypertensive agents
- reduces dosage requirements for other antihypertensive agents—often below the level of distressing side effects
- smooths out blood pressure fluctuations

INDICATIONS: management of hypertension

Smooth, more trouble-free management of hypertension with 'DIURIL'





little

How to win friends ...



The Best Tasting Aspirin you can prescribe.

The Flavor Remains Stable down to the last tablet.

25¢ Bottle of 48 tablets (1¼ grs. each).

We will be pleased to send samples on request.

THE BAYER COMPANY DIVISION of Sterling Drug Inc. 1450 Broadway, New York 18, N. Y.

NOW—FROM ABBOTT LABORATORIES



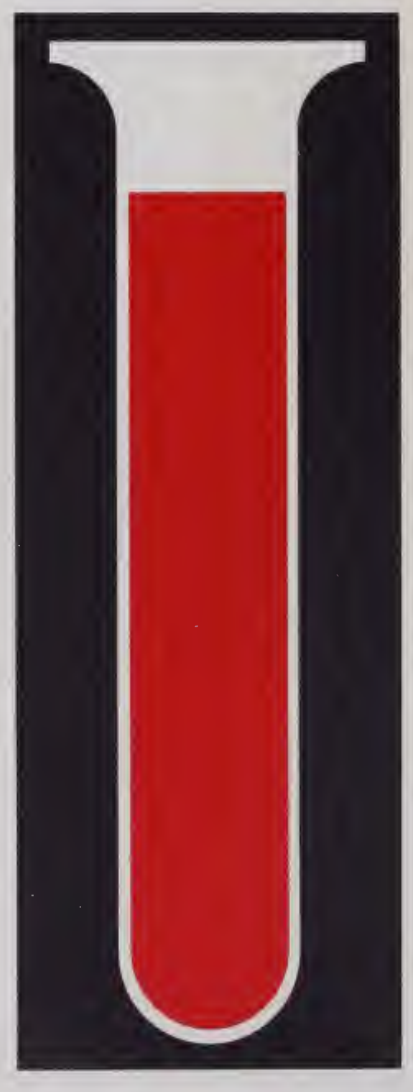
AN ANTIBIOTIC TRIAD
—FOR THE CONTROL OF
ALL COCCAL INFECTIONS

FILMTAB®

Erythrocin®

STEARATE (Erythromycin Stearate, Abbott)

against staph-, strep- and pneumococci



Indications

ERYTHROCIN is indicated in treating infections caused by staphylococci, streptococci (including enterococci), and pneumococci. Indicated also, in treating infections that have become resistant to other antibiotics. May be used for patients who are allergic to penicillin or other antibacterials.

Dosage

Usually administered in a total daily dose of 1 to 2 Gm., depending on severity of infection. Suggested dose is 250 mg. every six hours; for severe infections, usual dose is 500 mg. every six hours.

Supplied

In bottles of 25 and 100 *Filmtabs* (100 and 250 mg.). Also, in tasty, cinnamon-flavored oral suspension, in 75-cc. bottles. Each 5-cc. teaspoonful represents 100 mg. of ERYTHROCIN activity.

®Filmtab—Film-sealed tablets, Abbott; pat. applied for.



REMARKABLE EFFECTIVENESS PLUS A SAFETY RECORD UNMATCHED IN SYSTEMIC ANTIBIOTIC THERAPY TODAY

Actually, after almost six years of extensive use, there has not been a single report of a serious reaction to ERYTHROCIN. And, after all this time, the incidence of resistance to ERYTHROCIN has remained exceptionally low.

You'll find ERYTHROCIN is highly effective against the majority of coccal infections and may also be used to counteract complications from severe viral attacks. It comes in *Filmtabs* and in Oral Suspension. Abbott

802069

Compocillin-V®

for those penicillin-sensitive organisms



Indications

Against all penicillin-sensitive organisms. For prophylaxis and treatment of complications in viral conditions. And as a prophylaxis in rheumatic fever and in rheumatic heart disease.

Dosage

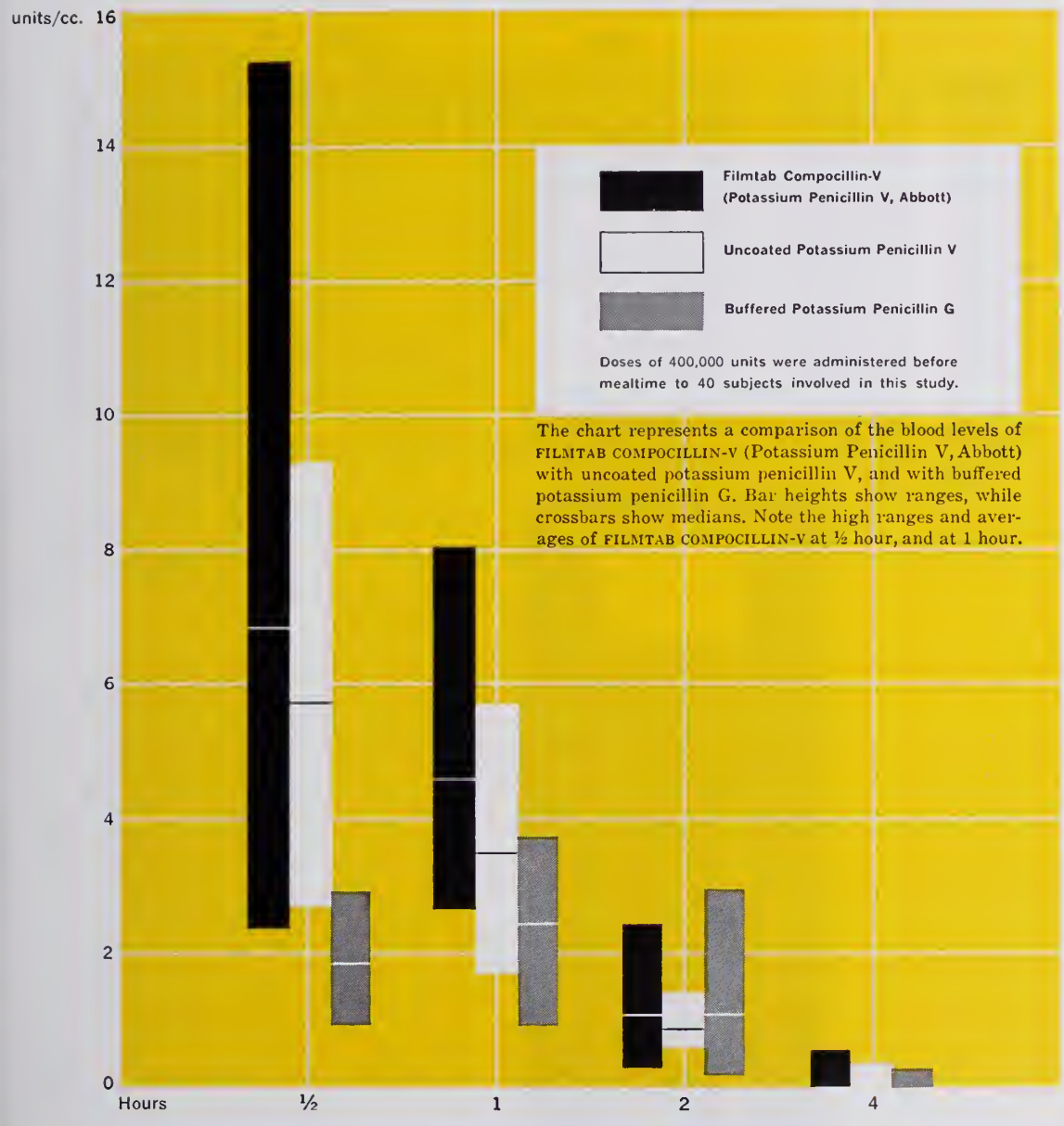
Depending on the severity of the infection, 125 to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage is determined by age and weight.

Supplied

Filmtabs COMPOCILLIN-V (Potassium Penicillin V, Abbott) come in 125 mg. (200,000 units), bottles of 50; and in 250 mg. (400,000 units), bottles of 25. Oral Suspension COMPOCILLIN-V (Hydrabamine Penicillin V, Abbott), contains 180 mg. per 5-cc. teaspoonful, in 40-cc. and 80-cc. bottles.

802071

THE HIGHER BLOOD LEVELS OF COMPOCILLIN-V
—IN EASY-TO-SWALLOW FILMTABS AND TASTY, ORAL SUSPENSION



Now, with *Filmtab* COMPOCILLIN-V, patients get (and within minutes) fast, high penicillin concentrations. Note the blood level chart.

COMPOCILLIN-V is indicated whenever penicillin therapy is desired. It comes in two highly-acceptable forms. *Filmtab* COMPOCILLIN-V offers two therapeutic dosages (125 and 250 mg.). Patients find *Filmtabs* tasteless, odorless and easy-to-swallow. For children, COMPOCILLIN-V comes in a tasty, banana-flavored suspension. It's ready-mixed – stays stable for at least 18 months.

Abbott

Spontin®

(Ristocetin, Abbott)

and when coccal infections hospitalize the patient



Indications

SPONTIN is indicated for treating gram-positive bacterial infections. Clinical reports have indicated its effectiveness against a wide range of staphylococcal, streptococcal and pneumococcal infections. It can be considered a drug of choice for the immediate treatment of serious infections caused by organisms resistant to other antibiotics.

Dosage

Recommended dosage depends on the sensitivity of the microorganism and on the severity of the disease under treatment. For pneumococcal and streptococcal infections, a dosage of 25 mg./Kg. per day will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. However, in endocarditis due to relatively resistant strains or where vegetations or abscesses occur, dosages as high as 75 mg./Kg. per day may be used. It is recommended that the daily dosages be divided into two or three equal parts at eight- or twelve-hour intervals.

Supplied

SPONTIN is supplied as a sterile, lyophilized powder, in vials representing 500 mg. of ristocetin activity.

802070

A LIFESAVING ANTIBIOTIC AFTER OTHER ANTIBIOTICS HAD FAILED



SPONTIN comes to the medical profession with a clinical history of dramatic results – cases where the patients were given little chance of survival.

During these careful, clinical investigations, lives were saved after weeks (and sometimes months) of antibiotic failures. These were the cases where the infecting organisms had become resistant to present-day therapy. And, just as important, were the good results found against a wide range of gram-positive coccal infections.

Essentially, SPONTIN is a drug for hospital use, for patients with potentially dangerous infections. In its present form, SPONTIN is administered intravenously using the drip technique. Dosage may be dissolved in 5% dextrose in water or in any isotonic or hypotonic saline solution. Some of the important therapeutic points of SPONTIN include:

1. successful short-term therapy for acute or subacute endocarditis
2. new antimicrobial activity – no natural resistance to SPONTIN was found in tests involving hundreds of coccal strains
3. antimicrobial action against which resistance is rare – and extremely difficult to induce
4. bactericidal action at effective therapeutic dosages.

SPONTIN is truly a lifesaving antibiotic. It could save the life of one of your patients – does your hospital have it stocked?

Abbott

SAINT BERNARD'S HOSPITAL

Council Bluffs, Iowa

Established 1887 Capacity 200 beds

Under the Supervision of the Sisters of Mercy

An Institution for the Study and Treatment
of Nervous and Mental Disorders.

Conditioned Reflex and Antabuse Therapy
for Alcoholism

Affiliated With Creighton University

WILLIAM E. ASH, M.D., Medical Director
JAMES D. MAHONEY, M.D., Associate Director RICHARD B. LEANDER, M.D.

DOCTOR—
DO YOU KNOW?

The Iowa State Medical Society
Sponsors A Group Plan of
Income Replacement Insurance
For The Members?

Write for *FREE BROCHURE*
There's No Obligation.

Exclusive Administrators

Holmes, Prouty, Murphy and May

1022 HIGH STREET DES MOINES, IOWA

How Old is Too Old for Tranquilizers ?

The psychological needs of the elderly confront physicians with one of their most perplexing problems. Perhaps no other patient group suffers so much from emotional distress. Yet, precisely because of their age, geriatric patients often seem beyond the reach of tranquilizing treatment.

When tranquilization seems risky . . .

They are too much beset by complicating chronic ailments, too susceptible to serious side effects. Ataraxia is clearly indicated, yet the doctor cannot risk side reactions on liver, blood or nervous system.

Is there an answer to this dilemma?

We feel there is. In four recent papers investigators have reported good results with ATARAX in patients up to 90 years of age.* In one study, **improvement** was **"pronounced" in 76%, "good" in an additional 18.5%.*** ATARAX has been successfully used in such cases as senile anxiety, agitation, hyperemotivity and persecution complex.* On ATARAX, patients became ". . . quieter and more manageable. They slept better and demonstrated improved relations with other patients and hospital personnel. Even their personal hygiene improved, and they required less supervisory management."*

. . . ATARAX is safe

Yet even in the aged, ATARAX has given "no evidence of toxicity. . . . Complete liver function tests and blood studies were made on all patients after two months of therapy. . . . There were no significant abnormalities."* With still other elderly patients "tolerance to the drug was excellent, even in cases where the patients were given relatively high doses."* Similarly, no parkinsonian effects have been observed on ATARAX therapy.

Nor does ATARAX make your patients want to sleep all day. Instead, they can better take care of themselves, because ATARAX leaves them both calm and alert. In sum, ATARAX ". . . does not impair psychic function and has a minimum of side effects. . . . It appears that ATARAX is a safe drug. . . ."*

These, undoubtedly, are the results you want when emotional problems beset your geriatric patients. For the next four weeks, won't you prescribe tiny ATARAX tablets or pleasant-tasting ATARAX syrup — both so readily acceptable to the elderly.

*Documentation on request

ATARAX®
(BRAND OF HYDROXYZINE)

M. A. Sidell M.D.
Medical Director

ATARAX
in any hyperemotive state

for childhood behavior disorders
10 mg. tablets—3-6 years, one tablet t.i.d.; over 6 years, two tablets t.i.d. Syrup—3-6 years, one tsp. t.i.d.; over 6 years, two tsp. t.i.d.

for adult tension and anxiety
25 mg. tablets—one tablet q.i.d. Syrup—one tbsp. q.i.d.

for severe emotional disturbances
100 mg. tablets—one tablet t.i.d.

for adult psychiatric and emotional emergencies
Parenteral Solution—25-50 mg. (1-2 cc.) intramuscularly, 3-4 times daily, at 4-hour intervals. Dosage for children under 12 not established.

Supplied: Tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.



New York 17, New York
Division, Chas. Pfizer & Co., Inc.



when you encounter

- respiratory infections
- gastrointestinal infections
- genitourinary infections
- miscellaneous infections

for all tetracycline-amenable infections, prescribe superior

SUMYCIN

Squibb Tetracycline Phosphate Complex

In your patients, **SUMYCIN** *produces:*

1. Superior initial tetracycline blood levels—faster and higher than ever before—assuring fast transport of adequate tetracycline to the site of the infection.

2. High degree of freedom from annoying or therapy-interrupting side effects.

Supply:	*Tetracycline phosphate complex equiv. to tetracycline HCl (mg.)*	*Packaging:*
Sumycin Capsules (per Capsule)	250	Bottles of 16 and 100
Sumycin Suspension (per 5 cc.)	125	2 oz. bottles
Sumycin Pediatric Drops (per cc.—20 drops)	100	10 cc. dropper bottles

SQUIBB

Squibb Quality—the Priceless Ingredient

"SUMYCIN" IS A SQUIBB TRADEMARK

Relieve moderate or severe pain

Reduce fever

Alleviate the general malaise of upper respiratory infections

'TABLOID'

'EMPIRIN' COMPOUND®

WITH

CODEINE PHOSPHATE*

maximum codeine analgesia/optimum antipyretic action

*Subject to Federal Narcotic Regulations



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Symbols

OF PROVEN PAIN RELIEF



gr. 1



gr. ½



gr. ¼



gr. ⅛

Formulas for dependable relief...

...from moderate to severe pain complicated by tension, anxiety and restlessness.

'CODEMPIRAL'® NO. 3*



Codeine Phosphate . . . . . gr. ¼
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

'CODEMPIRAL'® NO. 2*



Codeine Phosphate . . . . . gr. ¼
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

..from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

'TABLOID'

'EMPIRIN' COMPOUND®



Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½
Caffeine . . . . . gr. ½

.from mild pain complicated by tension and restlessness.

'EMPIRAL'®



Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

*Subject to Federal Narcotic Regulations

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Every custom-built mattress from SCIENTIFIC BEDDING STORES, INC.

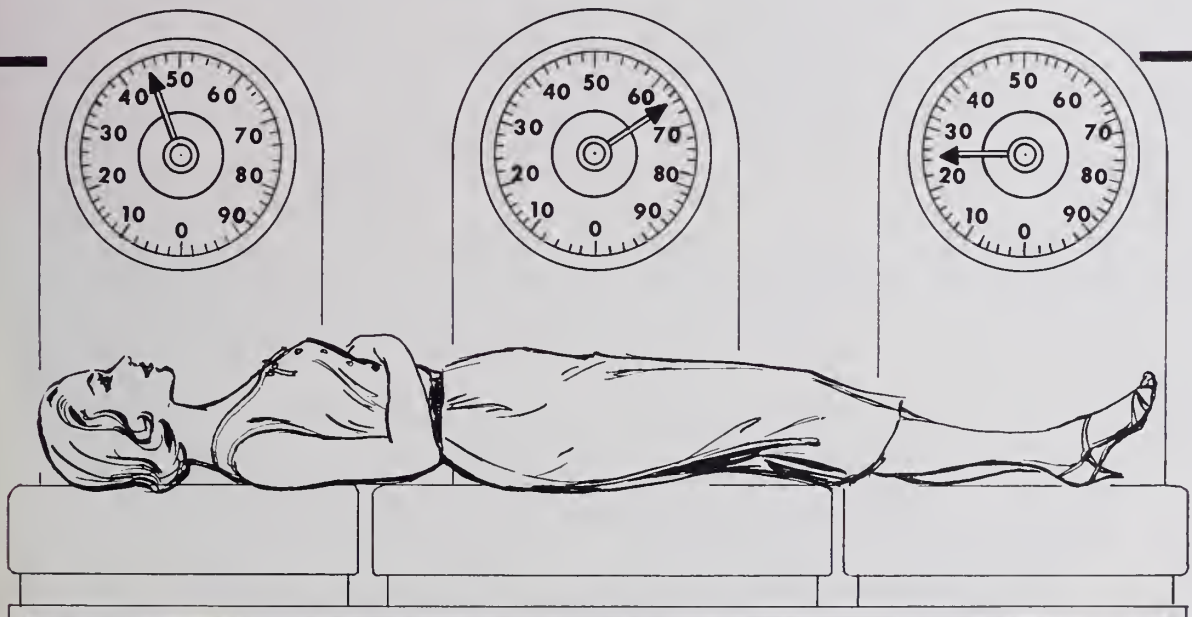
is an

ORIGINAL

made especially for you.

Nowhere, except at Scientific Bedding Stores, Inc., can you buy a mattress that is made just for you. From your exact weight distribution figures, we make a mattress to give you scientifically correct firmness and support.

Because each of us is proportioned differently, it just makes sense that our mattresses should be individually constructed. It's interesting to note that custom-built mattresses cost *no* more than ordinary mattresses.



SCIENTIFIC BEDDING STORES, Inc.

your **BACK'S** *best friend for the* **REST** *of your life*

General Offices:
Chicago P.O. Box #732

in Cedar Rapids, Iowa
Across from Post Office

NOW...A NEW TREATMENT

'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

for simultaneously combating inflammation, allergy, infection

METIMYD ophthalmic ointment

(0.5% prednisolone acetate and 10% sulfacetamide sodium—5 cc. dropper bottle)

METIMYD ointment

(0.5% prednisolone acetate, 10% sulfacetamide sodium and 0.25% neomycin sulfate—⅛ oz. tube)

in external eye disorders look to these topical healing aids



for ocular allergies

METRETON ophthalmic suspension

(0.2% prednisolone acetate and 0.3% CHLOR-TRIMETON®—5 cc. dropper bottle)

standard for ocular infections

Sodium SULAMYD ophthalmic ointment

(Sulfacetamide Sodium U.S.P.—5 and 15 cc. dropper bottles)

Sodium SULAMYD ophthalmic solution

(15 cc. dropper bottle)

Sodium SULAMYD ophthalmic ointment

(⅛ oz. tube)

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY Schering

M-J-128



The non-narcotic analgesic with the potency of codeine

DARVON (Dextro Propoxyphene Hydrochloride, Lilly) is equally as potent as codeine yet is much better tolerated. Side-effects, such as nausea or constipation, are minimal. You will find 'Darvon' helpful in any condition associated with pain. The usual adult dose is 32 mg. every four hours or 65 mg. every six hours as needed. Available in 32 and 65-mg. pulvules.

DARVON COMPOUND (Dextro Propoxyphene and Acetylsalicylic Acid Compound, Lilly) combines the antipyretic and anti-inflammatory benefits of 'A.S.A. Compound'* with the analgesic properties of 'Darvon.' Thus, it is useful in relieving pain associated with recurrent or chronic disease, such as neuralgia, neuritis, or arthritis, as well as acute pain of traumatic origin. The usual adult dose is 1 or 2 pulvules every six hours as needed.

Each Pulvule 'Darvón Compound' provides:

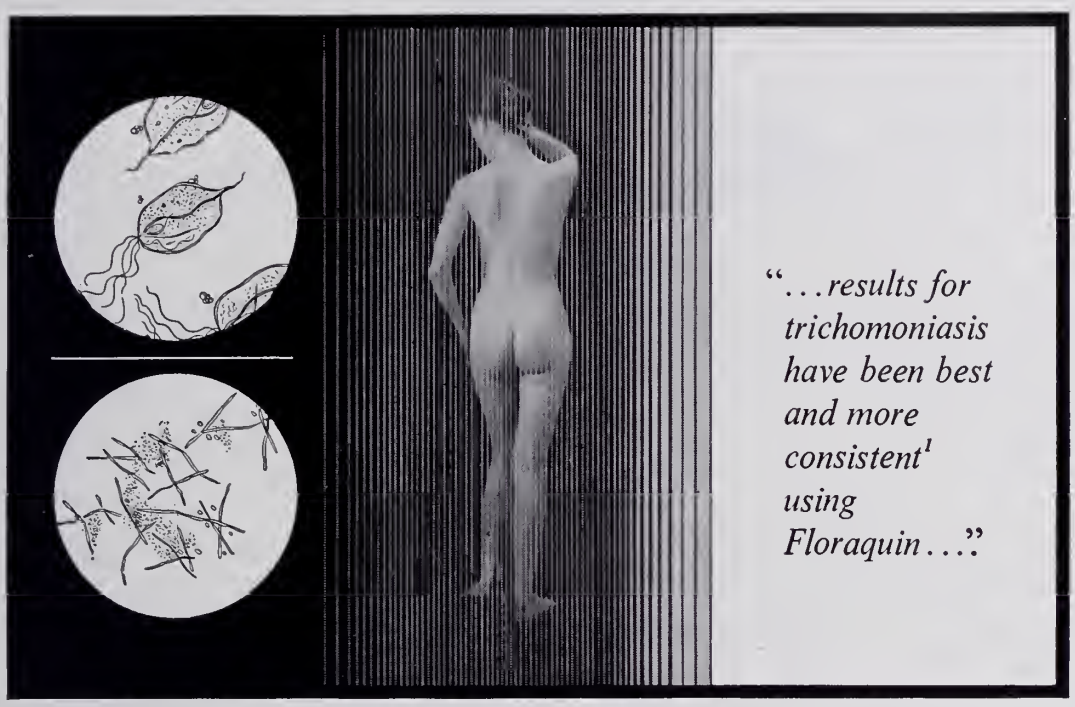
'Darvon'	*32 mg.*
Acetophenetidin	*162 mg.*
'A.S.A.' (Acetylsalicylic Acid, Lilly)	*227 mg.*
Caffeine	*32.4 mg.*

*'A.S.A. Compound' (Acetylsalicylic Acid and Acetophenetidin Compound, Lilly)

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U. S. A.

820260

EFFECTIVE, DEPENDABLE THERAPY FOR VAGINITIS



Floraquin® eliminates trichomonal and mycotic infection; restores normal vaginal acidity

Leukorrhea is by far the most frequent symptom of vaginitis; trichomonads and monilia are the most common causes. Many authors have reported[2] trichomonal protozoa in the vagina of 25 per cent of obstetric and gynecologic patients. Increased use of broad spectrum antibiotics has resulted in a sharp rise in the incidence of monilial infections.

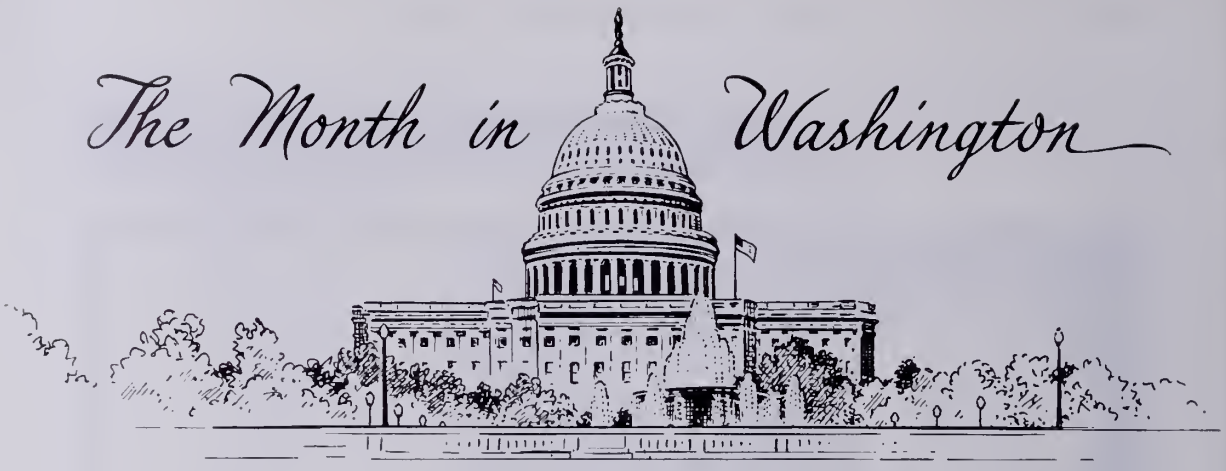
Floraquin effectively eradicates both trichomonal and monilial vaginal infections through the action of its Diodoquin® content. Floraquin also furnishes boric acid and sugar to restore the normal vaginal acidity which inhibits pathogens and favors the growth of protective Döderlein bacilli.

Pitt[1] recommends vaginal insufflation of Floraquin powder daily for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Pitt, M. B.: Leukorrhea. Causes and Management, J. M. A. Alabama *25*:182 (Feb.) 1956.
2. Parker, R. T.; Jones, C. P., and Thomas, W. L.: Pruritus Vulvae, North Carolina M. J. *16*:570 (Dec.) 1955.

SEARLE

The Month in Washington



Washington, D. C.—Those who are trying to follow the course of medical legislation find an unusual situation developing in this session of Congress. All of Washington is being subjected to forces, some completely new, that often work at cross-purposes to each other. The result could be a moratorium on health legislation—or again it could be a flood of new laws.

At the start of the session, a new-born interest in science completely dominated the scene—a desire that through the frantic spending of billions of dollars we might overtake Russia. That was the theme in Washington, and it persisted despite a few quiet voices that asked whether Russia really had far outdistanced the U. S. or was merely exploiting a slight advantage.

Even before the American satellite entered its orbit, some of the panic had subsided, and most of the legislators had decided that advent of the space age had not removed all of the old problems and opportunities in legislation and politics. The familiar issues were still there, medical panaceas included.

The shock of Russian achievements will, at any rate, produce legislation designed to shore up our educational system. This seems to be generally accepted. For the medical profession, two provisions

(Continued on page xxxv)

Cook County Graduate School of Medicine

INTENSIVE POSTGRADUATE COURSES

Starting Dates—Spring, 1958

SURGERY—Surgical Technic, Two Weeks, March 24, April 21, May 12
Surgery of Colon and Rectum, One Week, May 5
Treatment of Varicose Veins, May 5
Gallbladder Surgery, Three Days, June 2
Surgery of Hernia, Three Days, June 5
General Surgery, Two Weeks, May 5; One Week, May 12
Fractures & Traumatic Surgery, Two Weeks, June 9
Breast & Thyroid Surgery, One Week, May 5

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, April 14
Vaginal Approach to Pelvic Surgery, One Week, April 28
General & Surgical Obstetrics, Two Weeks, May 5

MEDICINE—General Review Course, Two Weeks, May 12
Electrocardiography, One Week Advanced Course, June 16
Hematology, One Week, June 2

PEDIATRICS—Two-Week Intensive Course, April 21

DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5

RADIOLOGY—Diagnostic X-Ray, Two Weeks, April 28
Clinical Uses of Radioisotopes, Two Weeks, May 5

UROLOGY—Two-Week Intensive Course, April 14
Cystoscopy, Ten-Day Practical Course, by appointment

Teaching Faculty—Attending Staff of Cook Co. Hospital

Address: Registrar, 707 South Wood St., Chicago 12, Ill.



Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM PHYSICIANS SURGEONS DENTISTS ALL BENEFITS GO TO

PHYSICIANS CASUALTY & HEALTH ASSOCIATIONS
OMAHA 31, NEBRASKA
Since 1902

See anybody here you know, Doctor?



I'm just too much

AMPLUS®
for sound obesity management
dextro-amphetamine plus vitamins
and minerals

I'm too little

STIMAVITE®
stimulates appetite and growth
vitamins B_1, B_6, B_{12}, C and L-lysine

I'm simply two

OBRON®
a nutritional buildup for the OB patient

OBRON® HEMATINIC
when anemia complicates pregnancy

And I'm getting brittle

NEOBON®
5-factor geriatric formula
hormonal, hematinic and
nutritional support

With my anemia,
I'll never make it up
that high



ROETINIC®
one capsule a day, for all treatable anemias

HEPTUNA® PLUS
when more than a hematinic is indicated

(Prescription information on request)

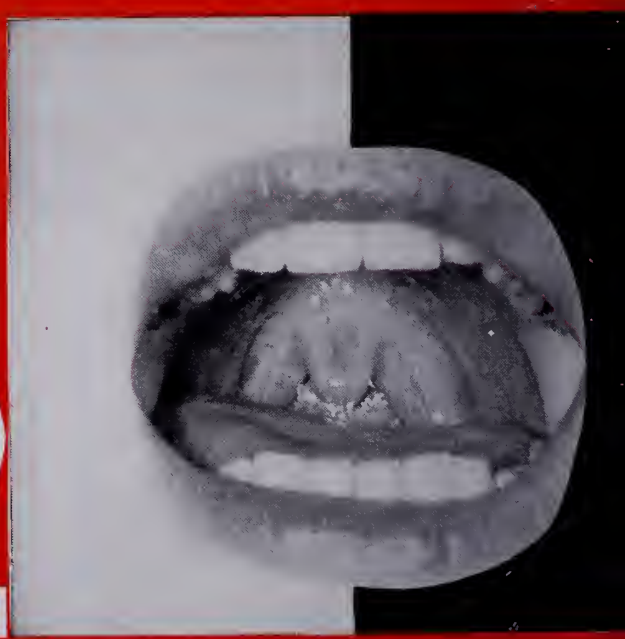
. . . solve their problems with a nutrition product from

ROERIG

New York 17, New York
Division, Chas. Pfizer & Co., Inc.

RELIEF





FROM INFECTION*

FROM IRRITATION

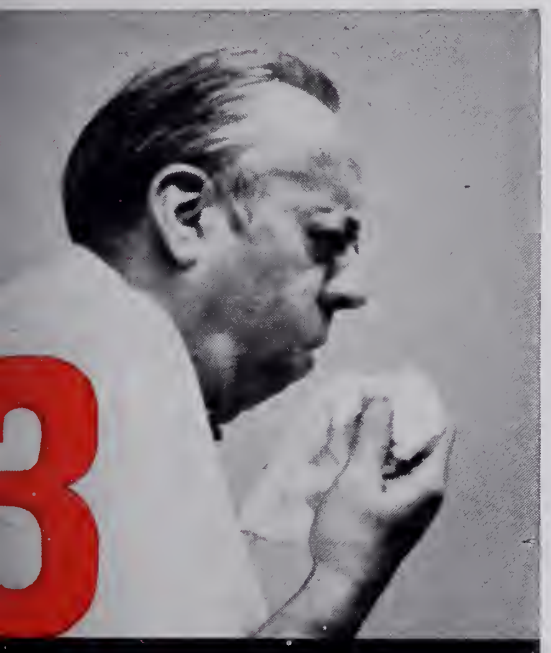
*as adjunctive therapy only

THE FIRST TROCHE TO PROVIDE THREEFOLD BENEFITS

PENTAZETS

TROCHES

NON-NARCOTIC ANTITUSSIVE EFFICACY SHOWN TO APPROXIMATE THAT OF CODEINE



3

D NOW COUGH CONTROL TOO

With the addition of a non-narcotic antitussive to troche medication, 'PENTAZETS' provides a new and extended therapeutic advantage in this convenient form of treatment.

Treatment of the cough too, so often a troublesome symptom of sore throat, combined with wide-range antibiotic activity and soothing analgesic benefit, now offers *three*fold relief in a variety of throat irritations.

And 'PENTAZETS' are pleasant-tasting, too, making them highly acceptable, especially to children.

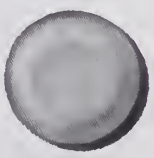
'PENTAZETS' contains:

• *Homarylamine*—a new non-narcotic antitussive with cough control shown to approximate that of codeine. • *Bacitracin-Tyrothricin-Neomycin*—a combined antibiotic treatment against many pathogenic organisms with little danger of unfavorable side effects. • *Benzocaine*—a local anesthetic for soothing relief to inflamed tissues. Being slowly absorbed, it is especially beneficial for prolonged effect and benefit to surrounding areas.

Supplied: Vials of 12.

Each 'PENTAZETS' troche contains:

Homarylamine hydrochloride	20 mg.
Zinc Bacitracin	50 units
Tyrothricin	1 mg.
Neomycin sulfate (equivalent to 3.5 mg. neomycin base)	5 mg.
Benzocaine	5 mg.



MSD

MERCK SHARP & DOHME

DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

PENTAZETS is a trademark of Merck & Co., Inc.

MY DAD— HE HURT HIS BACK REAL BAD

"It happened at work while he was putting oil in something"



"He told Mom his shoulder felt like it was on fire"



"He couldn't swing a bat without hurting"



"But Doctor gave him some nice pills--and the pain went away fast"



"Dad said we'd play ball again tomorrow when he comes home"



AND THE PAIN WENT AWAY FAST

FOR PAIN

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) TABLETS

ACTS FASTER...
usually within 5-15 minutes

LASTS LONGER...
usually for 6 hours or more

MORE THOROUGH RELIEF...
permits uninterrupted sleep through the night

RARELY CONSTIPATES...
excellent for chronic* or bedridden patients

and now... **NEW**

Percodan®-Demi

VERSATILE

New "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Available through all pharmacies.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

Literature? Write

Endo® **ENDO LABORATORIES**
Richmond Hill 18, New York

*U.S. Pat. 2,628,185

are of major interest. The proposed scholarships would be for four years—possibly six—offering some assistance to premed students and in some cases to those in their first year of medical school. Also, fellowships would be available for medical and other graduates if they wanted to teach or go into research.

The administration's idea was a program that would cost a billion dollars, but several leading Democrats joined in a bill proposing three billion dollars as a stimulant to mathematics and science.

But there are other factors to be reckoned with. For the first time a president set down in black and white in his budget just how he proposed to withdraw the federal government from some activities, or limit its participation, and turn the programs back to the states. Mr. Eisenhower wants to slow down on the Hill-Burton hospital construction program and change its emphasis; he wants to mesh in some veterans' benefits with social security payments; he would have the states do more and the U. S. less in public assistance (where medical payments are a growing factor); and he hopes to get Congress to drop the $50 million a year program of grants to help build water-treatment plants.

Whether Congress will follow the President's lead in the back-to-the-states movement is another question. At least he has said specifically what he thinks should be done, and when.

There was no expectation that the Russian scare would dilute politics this election year—and it hasn't. If anything, the partisans are struggling harder than ever to make records that will reflect glory on themselves next November. Some, of course, would be pressing for their projects regardless of the election.

So this is the prospect, in brief:

The Defense Department and science will get major attention and major money, but some may spill over into medicine.

There is some interest in a tight domestic budget and returning certain activities to the states, but old fashioned politics combined with a fear of a continuing recession may again open up the federal purse.

Medical legislation, always a popular subject, may get more and more attention as the session rolls on. If so, the Forand bill, among others, would come immediately to the fore.

NOTES

Several developments regarding the Jenkins-Keogh bills came early in the session. The American Thrift Assembly, representing some 10 million self-employed, urged favorable House Ways and Means action, and the American Medical Association pointed out that the proposal for tax deferment of money paid into retirement plans could help solve the problem of maldistribution of physicians.

In the Senate, a majority of the Small Business Committee introduced a tax relief bill with a Jenkins-Keogh provision. The section would allow anyone not now benefiting from a qualified pension plan to set aside 10 per cent of annual income

when anxiety and tension "erupts" in the G. I. tract...

IN GASTRIC ULCER



PATHIBAMATE*

Meprobamate with PATHILON® Lederle

Combines Meprobamate (*400 mg.*) the most widely prescribed tranquilizer . . . helps control the "emotional overlay" of gastric ulcer — without fear of barbiturate loginess, hangover or habituation . . . *with* PATHILON (*25 mg.*) the anticholinergic noted for its extremely low toxicity and high effectiveness in the treatment of many G.I. disorders.

Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime. ***Supplied:*** Bottles of 100, 1,000.

Lederle

*Trademark ® Registered Trademark for Tridihexethyl Iodide Lederle

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

($1,000, maximum). The bill went to Senate Finance Committee.

* * *

A limited number of medical scientists from this country and Russia will give lectures in each other's countries this year in an exchange program worked out by the State Department and the Soviet government. Also planned are exchanges of medical films and of medical journals between medical libraries. All these are part of a broad scientific, cultural and educational program between the two nations. Details haven't been worked out.

* * *

Six members of the Health Resources Advisory Committee have been named by Defense Mobilizer Gordon Gray. The Committee, headed by Dr. Elmer Hess, advises government on health and medical problems in time of war or national emergency. Members are Dr. George C. Whitecotten, Oakland, Calif., Dr. Franklin Yoder, Cheyenne, Wyo., Dr. Manry Louise Gloechner, Conshocken, Pa., Harold Oppice, D.D.S., Chicago, Dr. William Walsh, Washington, D. C., and Frances Graff, R.N., Grand Rapids, Mich.

CONFERENCE ON PERINATAL MORTALITY

The Committee on Maternal and Child Care of the AMA Council on Medical Service is to conduct a joint conference in Chicago on March 23 with North Central area physicians interested in the problems of perinatal mortality and morbidity. The topics to be discussed include terms and definitions used in perinatal mortality studies, organization and operation of such studies, and classification of causes of perinatal deaths.

It will be the second such regional meeting on the subject. Representatives of state and local medical society committees, state and local health departments, and individual hospitals in the following states have been invited: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North and South Dakota, and Wisconsin.

The Committee is working toward the development of a "Guide for Study of Perinatal Mortality and Morbidity" as an appropriate sequel to its 1957 publication "Guide for Maternal Death Studies."

PSYCHIATRIC SPEAKERS' BUREAU

One of the services offered by the General Practitioner Education Project jointly sponsored by the American Psychiatric Association and the AAGP is a Speakers' Bureau. It is prepared to offer the names of psychiatrists who are willing to serve as guest lecturers while they are taking their vacation trips. Medical societies, hospital staffs, etc. are invited to apply to the American Psychiatric Association, 1785 Massachusetts Avenue, N.W., Washington, D. C.

YOU AND YOUR FAMILY ARE CORDIALLY INVITED TO JOIN
A GROUP OF OTHER IOWA PHYSICIANS
WHO WILL ATTEND THE

Third World Congress of Cardiology
Brussels, Belgium

SEPTEMBER 14, TO SEPTEMBER 21, 1958

THIS IS AN INTERNATIONAL MEETING ON A
MEDICAL SUBJECT OF UNIVERSAL INTEREST TO PHYSICIANS.

FOLLOWING THE CONGRESS WILL BE A TOUR OF
ENGLAND, FRANCE, ITALY, GERMANY AND **SWITZERLAND,**
ARRANGED EXCLUSIVELY FOR THIS GROUP

AAA

Motor Club of Iowa
3019 Merle Hay Road, Des Moines 10, Iowa

STOP respiratory congestion orally

relief in minutes..lasts for hours

In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

Triaminic does not cause secondary congestion, eliminates local overtreatment and consequent nasal pathology.

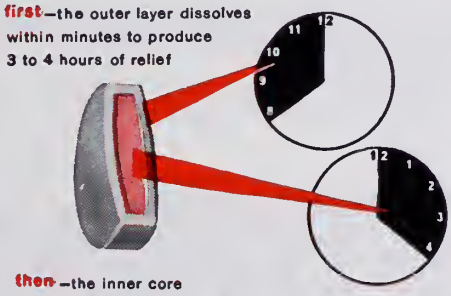
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

Each double-dose "timed-release" TRIAMINIC *Tablet contains:*

Phenylpropanolamine hydrochloride	50 mg.
Pyrilamine maleate	25 mg.
Pheniramine maleate	25 mg.

Dosage: 1 tablet in the morning, afternoon, and in the evening if needed.

Each double-dose "timed-release" tablet keeps nasal passages clear for 6 to 8 hours— provides "around-the-clock" freedom from congestion on just three tablets a day



Also available: Triaminic Syrup, for children and those adults who prefer a liquid medication.

Triaminic®

"timed-release" tablets

STOP *running noses . . . and open stuffed noses orally*

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

CARDIOLOGY CONGRESS AND EUROPEAN TOUR

Air transportation to and from the Third International Congress of Cardiology in Brussels and an air tour of England, France, Holland, Germany, Switzerland and Italy are being arranged exclusively for a group of Iowa physicians and their families by the American Automobile Association's Motor Club of Iowa. The Congress will be in session from September 14 to 21, during the World's Fair in Brussels, and the tour will take up the three following weeks.

Physicians will be enabled to visit medical schools and hospitals throughout Europe, and plenty of entertainment is being scheduled for the ladies, including visits to Paris salons.

Invitations have been mailed to doctors by Mr. Don Wrigley, manager of the Motor Club's World-Wide Travel Department, 3019 Merle Hay Road, Des Moines 10, and those who return the reply card or otherwise signify their interest before April 1 will be supplied with detailed information, registration forms, etc.

IOWA NEUROPSYCHIATRIC SOCIETY

Monday, April 21

Luncheon, 12:15 p.m.
Iowa Room, Hotel Savery
Ada R. Perel, M.D., Chairman

2:00 p.m. PANEL DISCUSSION: "Psychiatric Care for Children in Iowa"
Milford D. Barnes, Jr., M.D., Iowa City
Howard Turner, M.D., Des Moines
Helen Barton, M.D., Independence
William A. Tice, M.D., Waterloo

3:00 p.m. ASPECTS OF PRIVATE PSYCHIATRIC PRACTICE
"Outpatient Electrotherapy"—Jean Arnold, M.D., Coralville
"Volunteer Services for Private Inpatients"—W. J. Moershel, M.D., Cedar Rapids
"Medical Economics of Private Psychiatric Practice"—Larry Leaverton, Professional Management Midwest, Waterloo

3:45 p.m. Coffee Break

4:00 p.m. Meeting of Iowa Neuropsychiatric Society

NEW "flavor-timed" dual-action
CORONARY VASODILATOR
Dilcoron TRADEMARK
ORAL (tablet swallowed whole)
for dependable prophylaxis
SUBLINGUAL-ORAL
for immediate and sustained relief
of ANGINA PECTORIS

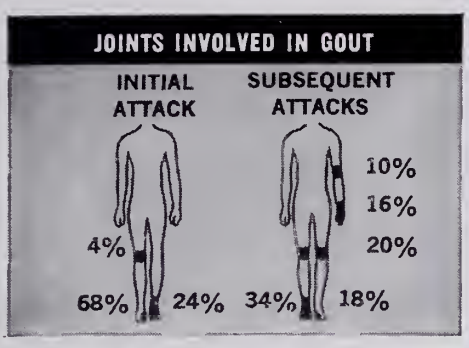


NITROGLYCERIN—
0.4 mg. (1/150 grain)—acts quickly
CITRUS "FLAVOR-TIMER"—
signals patient when to swallow
PENTAERYTHRITOL TETRANITRATE—
15 mg. (1/4 grain)—prolongs action

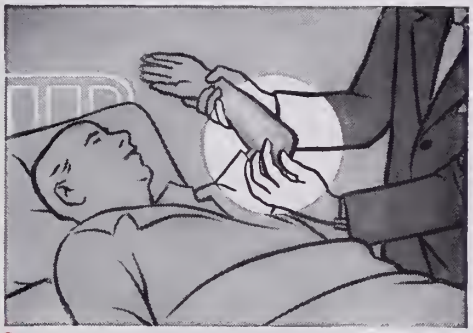
For continuing prophylaxis patient swallows the entire Dilcoron tablet.
Average prophylactic dose:
1 tablet four times daily.
Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

Bottles of 100.

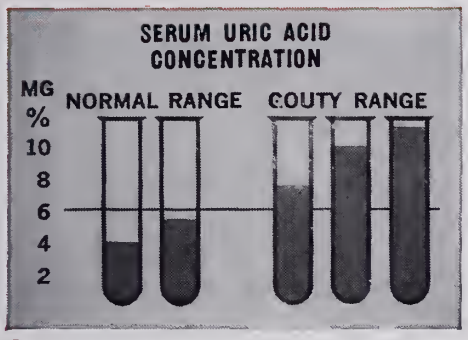
Winthrop LABORATORIES NEW YORK 18, N. Y.



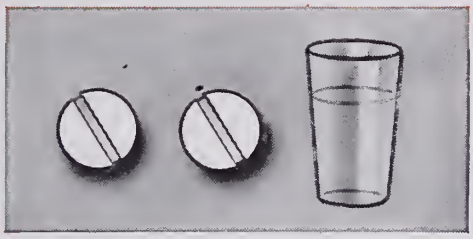
1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



3. Elevated serum uric acid levels.



4. Colchicine test: full dose (0.5 mg.) every 1 to 2 hours until pain is relieved or nausea, vomiting or diarrhea occur. The test requires usually 8 to 16 doses. Pain relief is highly indicative of gout.

FROM THESE FINDINGS...SUSPECT GOUT:

℞ BENEMID®

PROBENECID

A SPECIFIC FOR GOUT

Once findings point to gout, long-term management can be started with BENEMID. This effective uricosuric agent has these unique benefits:

- Urinary excretion of uric acid is approximately doubled.
- Serum uric acid levels are reduced.
- Uric acid deposits (tophi) in tissues are mobilized.
- Formation of new tophi can often be prevented.
- Fewer attacks and severity is reduced.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

BENEMID is a trade-mark of Merck & Co., Inc.

MSD

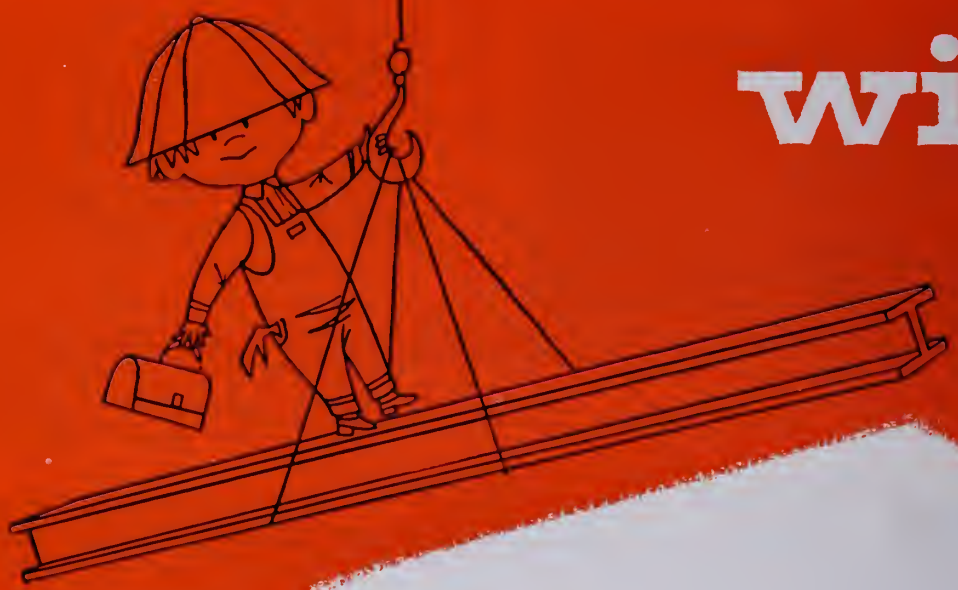
MERCK SHARP & DOHME

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INCR

with



CORRECTS IRON DEFICIENCY AS IT STIMULATES APPETITE

- Offers appetite stimulating Vitamins B_1, B_6, B_{12} and protei upgrading l-Lysine, fortified with a readily absorbed, we tolerated form of iron.
- Delicious cherry base designed to appeal to all patients.

PARTICULARLY FOR CHILDREN

Helps young appetites keep pace with the increased nutritio demands of childhood while supplying adequate amounts essential iron.

CEMIN* IRON

LYSINE-VITAMINS

SYRUP



Provides the following percentages of Minimum Daily Requirements per teaspoonful:

	Child under 6	Child over 6	Adult
B_1	2000%	1333%	1000%
Iron	400%	300%	300%

FORMULA

EACH TEASPOONFUL (5 cc.) CONTAINS

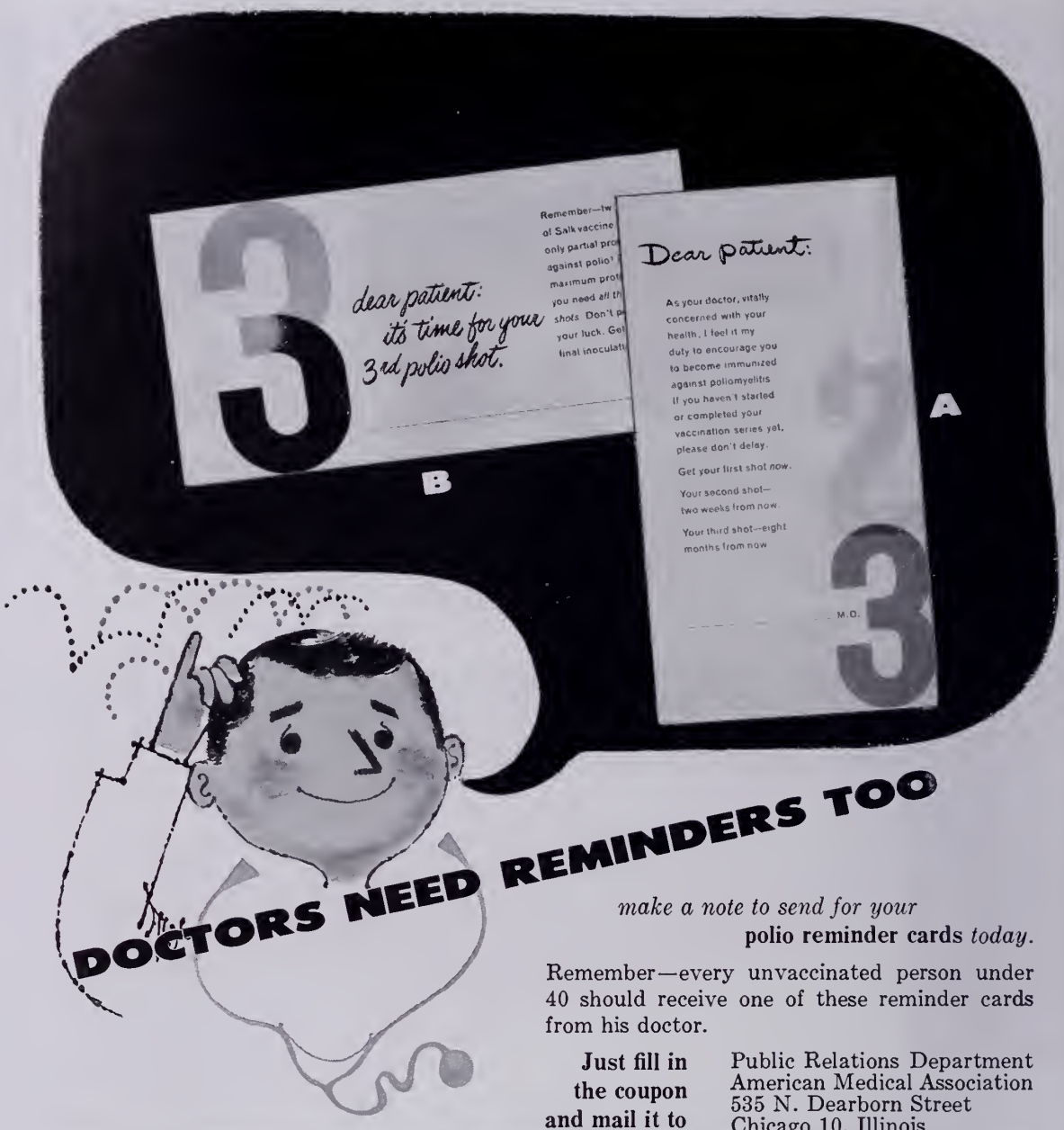
l-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Alcohol	0.75%

Average dosage is one teaspoonful daily. Available in bottles of 4 fl. oz.

*REG. U. S. PAT. OFF.

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DOCTORS NEED REMINDERS TOO

make a note to send for your
polio reminder cards *today.*

Remember—every unvaccinated person under 40 should receive one of these reminder cards from his doctor.

Just fill in the coupon and mail it to

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please send me

_____ copies of the **A** Salk series reminder cards.
indicate quantity

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indicate quantity

NAME_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____



IN ALL DIARRHEAS . . . REGARDLESS OF ETIOLOGY

comprehensive control with **CREMOMYCIN**®

SULFASUXIDINE* PECTIN-KAOLIN-NEOMYCIN SUSPENSION

SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

BROAD THERAPY . . . The combined antibacterial effectiveness of neomycin and Sulfasuxidine is concentrated in the bowel since the absorption of both agents is negligible.

LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

PALATABLE creamy pink, fruit-flavored CREMOMYCIN is pleasant tasting, readily accepted by patients of all ages.

*Sulfasuxidine is a trade-mark of Merck & Co., Inc.

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DIVISION OF MERCK & CO., Inc., PHILADELPHIA 1, PA.



Personals



Dr. John W. Barnes, a graduate of the Creighton University Medical School who interned at Mercy Hospital, Council Bluffs, has set up a general practice in Woodbine.

Dr. Peter F. Kepros, a native of Marion and a 1955 graduate of the SUI College of Medicine, joined **Dr. Donald O. Maland** at Cresco on February 1, following his discharge from the Navy. While in uniform, he interned at the naval hospital at Bremerton, Washington, and received training in phofluorographic interpretation at the naval hospital in Bethesda, Maryland.

The Newton Clinic, of which **Drs. John W. Ferguson, J. W. Billingsley, T. D. Wright** and **M. R. Moles** are members, moved into its new building on January 31. The building is air-conditioned, contains seven consulting rooms and facilities for x-ray and minor surgery, and houses a pharmacy.

At a meeting of the Iowa Society for Experimental Biology and Medicine, in Iowa City on January 28, **Dr. J. T. Bradbury**, of the SUI Department of Obstetrics & Gynecology, and **Dr. J. W. Eckstein,** of the Department of Internal Medicine, reported on research that they are conducting.

Dr. Alson E. Braley, head of the SUI Department of Ophthalmology, and his wife, spent their Christmas vacation in the Atlantic Coast states and in Florida.

Dr. Samuel Bluhm has been elected president of the Muscatine County Medical Society. **Dr. O. S. Keiser** is vice-president, and **Dr. John Spencer** is secretary.

A thief took about $8 from the petty cash drawer in the office of **Dr. Sidney Brody**, in Ottumwa, on January 25.

The medical staff of Allen Memorial Hospital, Waterloo, gave a dance on January 24 for the student nurses there.

Dr. J. Lawrence Cochran was elected president of the Carroll County Medical Society at a dinner meeting on December 19 at the Hotel Burke, in Carroll. He succeeded **Dr. Josef R. Martin. Dr.**

Doctor . . .

HERE IS WHAT YOU WANT

We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

- ✓ LIFETIME INCOME FOR SICKNESS
- ✓ LIFETIME INCOME FOR ACCIDENT
- ✓ DISMEMBERMENT BENEFITS
- ✓ HOUSE CONFINEMENT NEVER REQUIRED
- ✓ DOUBLE BENEFITS FOR SPECIFIC AUTO ACCIDENTS
  *(Available up to $25,000 principal sum which doubles to $50,000.)
- ✓ LIBERAL RENEWAL PROVISIONS
- ✓ NUMBER OF CLAIMS NOT LIMITED
- ✓ 24-HOUR COVERAGE

UNDERWRITTEN BY

All American Life & Casualty Company

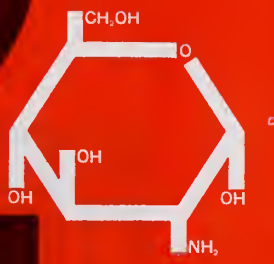
PARK RIDGE, ILLINOIS

Administered in Iowa by: E. Fredericksen, 213 16th Street, Des Moines 9, Iowa, Phone CHerry 4-4156

Three advantages of glucosamine-potentiated tetracycline:

1 ***Highest, fastest tetracycline blood levels,*** with glucosamine enhancement. A screening program involving 84 possible adjuvants, multiple four-way crossover tests, 30,000 blood level determinations and more than 100,000 assays proved glucosamine to be the enhancing agent of choice.

2 ***Greatest consistency of higher tetracycline blood levels*** Not only does glucosamine considerably increase antibiotic blood levels faster, but it produces these higher blood levels more consistently as shown by extensive crossover tests.



3 ***Achieved with the physiologic advantages of glucosamine,*** a normal human metabolite. Glucosamine, found widely in the body, is nontoxic and does not irritate the gastrointestinal tract; there is evidence that glucosamine may favorably influence the bacterial flora of the intestine. Further, it is sodium free and releases only four calories of energy per gram.

in new well-tolerated

The most widely prescribed broad-spectrum antibiotic now potentiated with glucosamine, the enhancing agent of choice

COSA-TETRACYN*

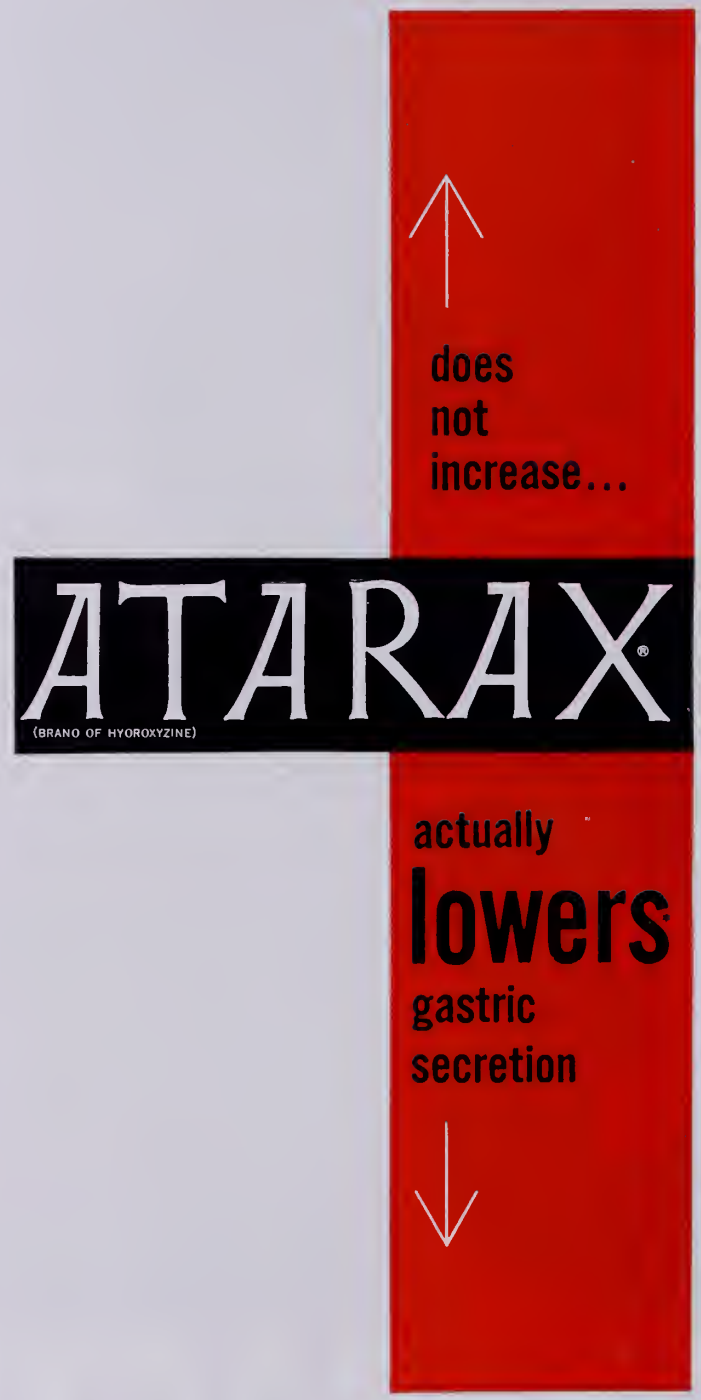
GLUCOSAMINE-POTENTIATED TETRACYCLINE

Capsules, 250 mg., 125 mg.
Half strength (125 mg. capsules) for long-term indications or pediatric use.

Pfizer Pfizer Laboratories, Division, Chas. Pfizer & Co., Inc., Brooklyn 6, N.Y.

*Trademark

there is one tranquilizer clearly indicated **in peptic ulcer...**



*Tests in a series of 25 patients show that there is "a definite and distinct lowering [of both volume of secretions and of free hydrochloric acid] in the majority of patients. . . . No patients had shown any increase in gastric secretions following administration of the drug."[1]

Now you have 4 advantages when you calm ulcer patients with ATARAX:

1. ATARAX suppresses gastric secretions; others commonly increase acidity.
2. ATARAX is "the safest of the mild tranquilizers."[2] (No parkinsonian effect or blood dyscrasias ever reported.)
3. It is effective in 9 of every 10 tense and anxious patients.
4. Five dosage forms give you maximum flexibility.

supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

references: 1. Strub, I. H.: Personal communication. 2. Ayd, F. J., Jr.: presented at Ohio Assembly of General Practice, 7th Annual Scientific Assembly, Columbus, September 18-19, 1957.

Roerig Rx
New York 17, New York
Division, Chas. Pfizer & Co., Inc.

James M. Tierney was elected vice-president, and **Dr. Paul T. Cawley**, secretary-treasurer.

Dr. and Mrs. Ralph Gorrell, of Clarion, left on January 20 for a protracted trip through Europe and Africa. They planned to visit Portugal, Spain, Morocco, Nigeria, French Equatorial Africa, Rhodesia, Union of South Africa, Kenya and the Belgian Congo, and to stop for several days in Paris on their way home. Mrs. Gorrell has relatives who live in the Union of South Africa.

At a meeting of the Sioux County Board of Supervisors in Orange City on January 22, representatives of the County Medical Society and hospital representatives asked for increases in the rates which may be charged for the care of county patients. The Board took no immediate action.

Dr. Don F. Rodawig, Sr., of Spirit Lake, suffered a coronary occlusion on January 23, and was hospitalized in Rochester, Minnesota, for observation. He then returned home for 30 days of rest.

Dr. James Skultety, of Des Moines, reported to police that some morphine was stolen from his car on February 2 as it was parked in front of his home. The leather bag which had contained it was not taken.

Dr. Julian M. Bruner, of Des Moines, has been made president-elect of the American Society of Surgery of the Hand, a group that he helped to found in 1946. He will take office in 1960.

Dr. Ernest O. Theilen and **Dr. Ian Smith** of the Department of Internal Medicine, and **Dr. J. L. Ehrenhaft,** of the Department of Surgery at the SUI College of Medicine, were the speakers at a scientific seminar in Spencer on January 29, sponsored by the Northwest Iowa Heart Council and the Clay County and Northwest Iowa Medical Societies. About 40 physicians from a 10-county area attended.

On February 1, **Dr. Roy F. Statton,** an opthalmic surgeon, joined **Drs. Frank H. Reuling, Henry A. Bender, Sterling A. Barrett, Ross G. Randall** and **Richard D. Richards** in practice at Waterloo. He is a 1950 graduate of the SUI College of Medicine, and he was in general practice at La Porte City for 2½ years before returning to Iowa City for his residency.

At West High School auditorium, in Waterloo on February 5, **Drs. Charles A. Waterbury, Jr.,**

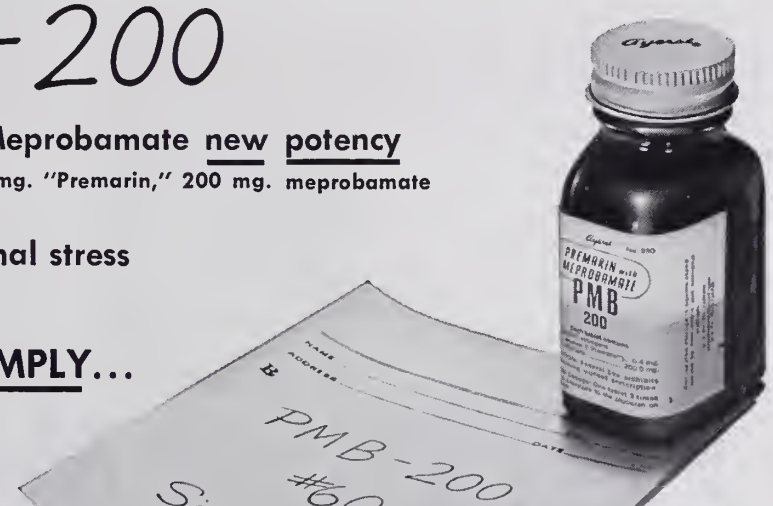
PMB-200

"Premarin" with Meprobamate new potency

Each tablet contains 0.4 mg. "Premarin," 200 mg. meprobamate

For undue emotional stress in the menopause

WRITE SIMPLY...



Supply:
No. 880, PMB-200 bottles of 60 and 500.
No. 881, PMB-400 bottles of 60 and 500.

Also available as PMB-400 (0.4 mg. "Premarin," 400 mg. meprobamate in each tablet).

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Cecil Seibert, **Ivan Powers**, **Rolf Kruse** and **John McCoy** composed the panel at a public forum on ob-gyn. problems. The meeting—the second in a series of three—was jointly sponsored by the WATERLOO DAILY COURIER and the Black Hawk County Medical Society. About 2,000 women attended it. The final program, on March 5, will concern gastrointestinal problems.

On January 24, **Dr. Ward C. Halstead**, of the University of Chicago, spoke to the medical staff of the VA hospital in Knoxville on "Organic Psychopathology and Brain Damage."

The Davis County Medical Society reelected all of its officers at its annual meeting held on January 16. They are **Dr. W. D. Haufe**, president; Dr. **Paul T. Meyers**, vice-president; **Dr. Stanley R. Jaskunas**, secretary-treasurer; **Dr. Edwin O. Gilfillan**, delegate; and **Dr. John R. Scheibe**, alternate delegate.

Dr. J. O. Cromwell, director of state mental hospitals, has hinted that he will sanction the hiring of foreign psychiatrists for the institutions under his supervision only if they have a rather thorough command of the English language. In a news story in the DES MOINES REGISTER for January 22, he was quoted as saying, in effect, that some of the 39 continental doctors now serving state hospitals in Iowa have trouble with the language, and that though they won't be dismissed on that account, linguistic ability will be a prime consideration in future hirings.

Dr. Alroy G. West, of Council Bluffs, has announced that he will hold office hours two nights a week in the consulting rooms formerly occupied by **Dr. J. W. Standeven** in Oakland. He practiced full-time in Oakland prior to World War II, and expects to spend even more time there when he has found a man to work with him in Council Bluffs.

At a meeting of the Dubuque unit of the Archdiocesan Physicians' and Dentists' Guild on January 29, **Drs. S. A. O'Brien, Jr.**, and **J. J. Straub** presented the approved medical approach to tubal pregnancy and to sterilizing surgery in cases of breast cancer. **Msgr. E. P. Ament** and **Fr. G. R. Jonbert, O.P.**, discussed the ethical implications. **Dr. Thomas F. Thornton, Jr.**, is president of the organization, and **Dr. T. J. Benda** is secretary.

A medical bag, with its contents valued at $500, was stolen from **Dr. H. S. Frenkel's** car, in Clarinda

when anxiety and tension "erupts" in the G. I. tract...

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a superior psychochemical
for the management of both
minor and major
emotional disturbances



Dartal T.M.

dihydrochloride brand of thiopropazate dihydrochloride

- more effective than most potent tranquilizers
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Dartal is a unique development of Searle Research, proved under everyday conditions of office practice

It is a single chemical substance, thoroughly tested and found particularly suited in the management of a wide range of conditions including psychotic, psychoneurotic and psychosomatic disturbances.

Dartal is useful whenever the physician wants to ameliorate psychic agitation, whether it is basic or secondary to a systemic condition.

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Specifically, the usefulness of Dartal has been established in psychoneuroses with emotional hyperactivity, in diseases with strong psychic overtones such as ulcerative colitis, peptic ulcer and in certain frank and senile psychoses.

Usual Dosage • In psychoneuroses with anxiety and tension states *one 5 mg. tablet t.i.d.*

• In psychotic conditions *one 10 mg. tablet t.i.d.*

on January 10. A suspect was subsequently arrested and held in lieu of $5,000 bond.

Drs. Walter L. Bierring and **Daniel A. Glomset** were the speakers in a discussion of problems of the aged on KRNT-TV, Des Moines, January 22. Dr. Bierring suggested that employers establish a system for deciding times for retirement on an individual and medical basis, and Dr. Glomset expressed regret that the problems of the elderly have not been sufficiently dramatized and funds collected so that they can be met. He pointed out that without subsidies, care-and-keep homes cannot maintain high standards.

The program, one of a series called "Private Line," was sponsored by the Division of Adult Education of the Des Moines Public Schools.

Sometime this month, **Miss Rose Marie Boren**, of Grundy Center, and **Dr. John Jaquis** are to be married. Miss Boren has been a nurse at the Grundy County Memorial Hospital, and Dr. Jaquis is associated with **Dr. Lynn E. Frink** in the practice of medicine in Reinbeck.

At its annual meeting early in January, the Monroe County Medical Society chose **Dr. R. A. Smith** as president; **Dr. Harold J. Richter,** vice-president; and **Dr. Don N. Orelup,** secretary-treasurer. Dr. Richter was named delegate, and **Dr. F. N. Bay,** alternate. All of them practice in Albia.

Dr. Don R. Schumacher, who recently established a practice in Clinton, has been appointed to replace **Dr. W. M. Walliker** as a member of the county sanity commission there. In submitting his resignation, Dr. Walliker said that his tenure in that position (20 years) "established something of a record."

In mid-January, **Dr. James Schmitz,** of Dubuque, left for Bakersfield, California, where he will take a three-year residency in obstetrics. For several months he had been an assistant surgeon with the Medical Associates clinic.

Dr. E. M. Eneboe, of Hawarden, went to Bozeman, Montana, in mid-January because of what proved the fatal illness of his brother Dr. Paul, who had practiced medicine there for 20 years.

Dr. Gerald F. Landry, of Council Bluffs, has been made a clinical assistant in the Department of Surgery at the University of Nebraska College



* J.A.M.A. *166*:158,1958; Welsh,A.L. and Ede,M. "...*prompt remissions of...acute phases.*" with TARCORTIN

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* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

a new high in
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with lower dosage
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Triamcinolone LEDERLE

a new low in the collateral
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with all previous corticosteroids

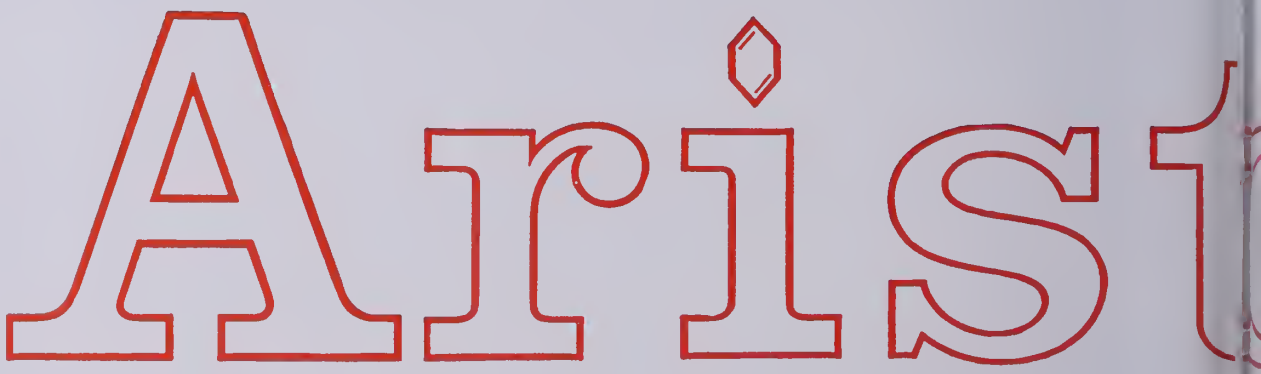
- No sodium or water retention
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The Achievement in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone.[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]... absence of serious side effects specifically noted.[1,2,3]

The Achievement in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]...6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]



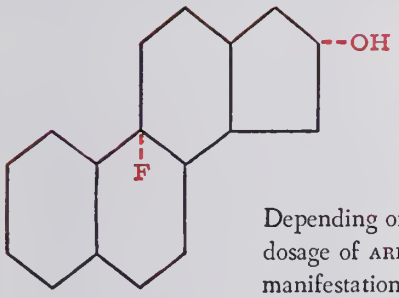
1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec. 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

The Achievement in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

The Achievement in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.[8,9]... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.[10,11,12]... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.[13]

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Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

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of Medicine. He will continue as chief of anesthesiology at the Jennie Edmundson Hospital.

At the January meeting of the Des Moines County Medical Society, **Dr. John Foss,** of Burlington, was elected president, succeeding **Dr. George Crow. Dr. J. H. Murray** was made vice-president; **Dr. Robert Allen,** secretary; and **Dr. Harry McMurray,** treasurer. The committee chairmen are **Dr. F. D. Winter,** blood bank; **Dr. John McKittrick,** poliomyelitis; **Dr. Robert Bell,** public relations; **Dr. John Sulzbach,** cancer; **Dr. F. H. Coulson,** heart; Dr. Crow, diabetes; and Dr. Allen, disaster planning. **Drs. Frank Ober** and **E. P. Russell** were chosen as delegates.

At the meeting held on February 8, **Dr. Walter Friday** spoke on "Practical Application of X-ray in Pelvimetry."

Dr. Lester R. Dragstedt, head of surgery at the University of Chicago, and **Dr. Frank R. Peterson,** of Cedar Rapids, and 19 faculty members were the speakers at the postgraduate course in surgery conducted at the SUI College of Medicine, in Iowa City on January 23 and 24.

At the meeting of the Polk County Medical Society on February 12, **Reverend Raymond Conley,** of Elkhart, Iowa, spoke on "Religion and Medicine —Partners for Good." Father Conley is editor of THE CATHOLIC MESSENGER.

At the March 19 meeting, at the Savery Hotel, **Dr. J. Garrod Allen,** professor of surgery at the University of Chicago, will speak on "Blood Is Everybody's Business."

The Jones County Medical Society's new officers are **Dr. Gerald F. Brown,** of Anamosa, president; **Dr. R. W. Myers,** of Monticello, vice-president; and **Dr. John Bailey,** of Anamosa, secretary-treasurer.

After holding separate business meetings on February 5, the Bar Association and Medical Society of Johnson County joined to hear a panel discussion of medico-legal problems. The moderator was **State Senator D. D. Nolan,** and the participants included **Drs. W. B. Gelman, L. H. Jacques** and **John R. Maxwell,** and attorneys **A. C. Cahill, Edw. W. Lucas, William M. Tucker, Cora Unash Griffin** and **R. N. Miller.**

Dr. Eugene Van Epps, of the Department of Radiology, and **Dr. E. D. Warner,** of the Department of Pathology at the SUI College of Medicine, were among the discussion group leaders at the "College Teachers Conference" on the program of the annual meeting of the American College of Radiology, in Chicago early in February.



A NEW, CORTICOSTEROID MOLECULE WITH GREATER ANTIALLERGIC, ANTIRHEUMATIC AND ANTI-INFLAMMATORY ACTIVITY



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- far less gastrointestinal distress
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Standard formulas for PREMATURES

Breast milk is satisfactory for the feeding of prematures in spite of the low protein and mineral and high fat content. But eventual formula feeding should provide a high protein and carbohydrate to satisfy the rapid-growing needs of the premature and low fat content because of limited digestive capacity.

Feedings of small prematures are most effectively administered by the indwelling polythene nasal catheter and of large prematures, by bottle with small nipples.

The first six feedings should be a sterile 5% solution of Karo Syrup at 2 to 3 hour intervals; for subsequent feedings, breast milk or formula should be added in gradually increasing amounts according to tolerance and requirements, as indicated in the table below.

Initial feeding schedules for premature infants

(Feedings Started After 36 Hours and Continued at 2 to 3 Hour Intervals)

FEEDINGS	COMPOSITION	QUANTITY
First Six	5% Karo	2-5 ml.
7th and 8th	2 parts 5% Karo 1 part breast milk or formula	6-10 ml.
9th and 10th	1 part 5% Karo 1 part breast milk or formula	8-15 ml.
11th and 12th	1 part 5% Karo 2 parts breast milk or formula	10-18 ml.
Subsequently	Breast or formula feeding	12-20 ml.

ADVANTAGES OF KARO® IN INFANT FEEDING



Composition: Karo is a superior maltose-dextrin mixture because the dextrins are non-fermentable and the maltose is rapidly transformed into dextrose which requires no further digestion.

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At the March 4 meeting of the Wapello County Medical Society, **Dr. Robert G. Carney,** of SUI, will speak on "Dermatologic Treatment, Old and New."

Dr. Floyd Burgeson was the speaker at the mid-term commencement exercises at North High School in Des Moines on January 23. His daughter Nancy, an honor student, was a member of the graduating class.

Dr. Dwight Wirtz, an orthopedic surgeon, is a member of the newly created board of directors of United Campaign Services, in Des Moines.

The Des Moines Better Business Bureau warns that a man has been soliciting orders in doctors' offices recently for garments that he says will be supplied by Smartex Uniforms, 2010 Wilshire Boulevard, Los Angeles, a non-existent firm. He is said to have practiced a similar deception two years ago.

Dr. J. H. Sunderbruch was called to Milwaukee early in February following an auto accident there in which his 19-year-old son Tom sustained a skull fracture.

A set of auto license plates for **Dr. W. A. Seidler** traveled the long way between Guthrie Center and his home in Jamaica, Iowa. Though they had been purchased on December 2, they didn't come until the end of January, and the envelope showed that they had passed through the postoffice of Jamaica, British West Indies.

Dr. Robert Wettach has announced plans for constructing an office building for himself in Mt. Pleasant.

Physicians acquainted with hospital-administration problems may be interested in the following statistics from the Adair County Memorial Hospital, in Greenfield. The admissions to that institution during 1957 totaled 1,977, or 220 more than in 1956. Occupancy for 1957 averaged 56.45 per cent, as compared with 54.96 per cent for the previous year. The cost of patient meals averaged $.3313 each, and the average deficit, not counting the cost of capital improvements, was $1200 per month.

Dr. Donald V. Walz, pathologist at Mercy Hospital, Iowa City, was hospitalized for treatment of a heart condition late in January.

At the second annual public heart forum in Iowa City, on February 19, **Dr. C. E. Schrock,** Iowa City internist, was the moderator, and the participants



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salicylate benefits with minimal salicylate drawbacks

Rapid and prolonged relief — with less intolerance. The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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Meat...

and Protein Nutrition in Vascular Disease

Whether the eventual solution of the problem of atherogenesis will come out of the field of dietetics, biophysics, or pharmacology, one fact remains undeniable:

Adequate protein nutrition is considered of importance for the age group most commonly affected by disease of the vascular system, so that the demands of good nutritional health might be met.

Meat is outstanding among protein foods. It supplies all the essential amino acids, and closely approaches the quantitative proportions needed for biosynthesis of human tissue.

In addition, it is an excellent source of B vitamins, including B_6 and B_{12}, as well as iron, phosphorus, potassium, and magnesium.

When curtailment of fat intake is deemed indicated, meat need not always be denied the patient. Visible fat obviously should not be eaten. But the contained percentage of invisible (interstitial) fat is well within the limits of reasonable fat allowance.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

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Main Office, Chicago...Members Throughout the United States

were **Dr. J. W. Culbertson**, head of the SUI Cardiovascular Research Laboratories; **Dr. L. E. January**, professor of internal medicine at SUI; and **Dr. W. M. Kirkendall**, chief of medical service, and **Dr. Maurice W. Van Allen**, chief of the neurological service at the Iowa City VA Hospital.

Dr. Donald Schmitt, who has practiced at Kimballton since August, 1955, will move to Ringsted on April 1.

At the sixty-second annual meeting of the Sioux Valley Medical Association, in the Sheraton-Cataract Hotel at Sioux Falls on February 25-27, the speakers included **Dean Walter Hard**, of the South Dakota School of Medical Sciences; **Dr. John H. Moore**, a Grand Forks obstetrician; **Dr. John C. Trabue**, an associate professor of surgery at Ohio State University; **Dr. Robert Chissom**, a professor of medicine at the University of Nebraska; **Dr. Joseph R. Christian**, a professor of pediatrics at Loyola University, Chicago; **Dr. J. A. Bargen**, a professor of medicine at the Mayo Foundation; **Dr. William H. Requarth**, an assistant professor of surgery at the University of Illinois; and **Mr. Ellsworth Evans**, a Sioux Falls attorney.

At a public forum sponsored by the Linn County Heart Committee, the Linn County Medical Society and the CEDAR RAPIDS GAZETTE, in the Coe College Auditorium on February 11, the panel consisted of **Drs. B. F. Wolverton** and **J. Stuart McQuiston**, Cedar Rapids internists, **Dr. L. E. January**, a professor, and **Dr. Ernest O. Theilen**, an assistant professor of internal medicine at SUI.

At the meeting of the Cerro Gordo County Medical Society, in the Sky Room of the Hanford Hotel, Mason City, at 6:30 p.m. on March 11, **Dr. Willis Fowler**, a professor of internal medicine at SUI, will speak on "The Diagnosis and Management of Anemias."

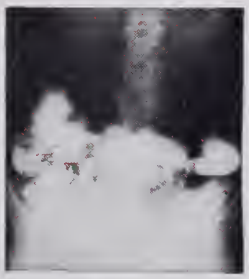
At the Black Hawk County Medical Society's meeting, in the Elks Club, Waterloo, at 6:30 p.m. on March 18, **Dr. J. C. Broadbent**, of Rochester, Minnesota, will speak on "The Artificial Kidney."

At the meeting on February 18, **Dr. Kenneth Devine**, of the Mayo Clinic, spoke on "Head and Neck Tumor Surgery."

Dr. W. A. Spencer, now a board-certified surgeon, returned from Washington, D. C., to Osage

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- debilitated
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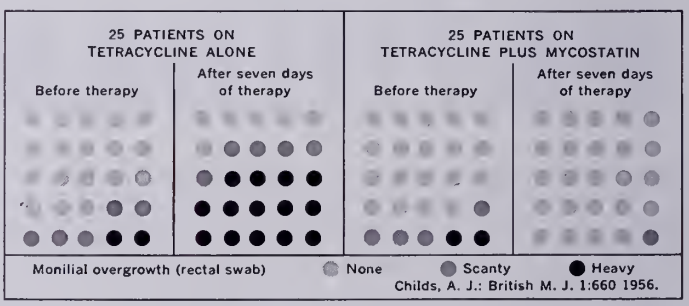
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Childs, A. J.: British M. J. 1:660 1956.

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In pain. Anxious. Fearful. On the road to cardiac invalidism. These are the pathways of angina patients. For fear and pain are inexorably linked in the angina syndrome.

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"Cardiac patients who show significant manifestations of anxiety should receive ataractic treatment as part of the therapeutic approach to the cardiac problem."[1]

1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. *8*:1075 (July) 1957.

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during February to practice with **Drs. John O. Eiel** and **Keith R. Hughet.**

A combined meeting of the Medical Society and the Bar Association of Pottawattamie County is to be held at the Hotel Chieftain, in Council Bluffs, at 6:30 p.m. on March 18.

At the March 5 meeting of the Johnson County Medical Society, in Iowa City, **Dr. R. L. Lawton,** of the Department of Surgery at the Iowa City V-A Hospital, will speak on "The Use of the Artificial Kidney in Acute Renal Insufficiency."

Dr. Gordon F. Harkness, of Davenport, received the 1957 James E. Newcomb Award of the American Laryngological Association. The accompanying citation said: ". . . for his long years of distinguishcd service to organized medicine and this organization."

DEATHS

Dr. Howard W. Smith, 76, died at his home in Woodward on January 31, of a heart ailment. He had been ill since November.

Dr. Walter Cook, 93, who had practiced in Pisgah for 50 years when he retired 10 years ago, died in Orange, California, on February 5.

Dr. W. S. Balkema, 69, who had practiced for 23 years in Sheldon, died of cancer on February 4 at Community Memorial Hospital there.

Dr. James G. Macrae, 73, who practiced for nearly 40 years in Creston, died of cerebral hemorrhage at Coldwater, Michigan, on New Year's Day. He had lived there with a nephew since 1955.

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...tetracycline phosphate alone

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BROAD-SPECTRUM TETRACYCLINE IN ITS MOST EFFICIENT FORM

Produces more tetracycline in the blood with no more in the dose. No calcium to depress blood levels.[1] Basic broad-spectrum therapy in bronchitis, pharyngitis, otitis media, tonsillitis, and other common respiratory infections.

1. Welch, H., Wright, W. W., and Stafis, A. W.: Antibiotic Med. & Clin. Therapy 4:620, 1957

in potentially serious infections
...tetracycline phosphate plus novobiocin

PANALBA*

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Offers maximum antimicrobial action at the earliest possible moment. The antibiotic preparation of first resort in pneumonia of unknown etiology, carbuncles, multiple furunculosis, cellulitis, and infections resistant to previous therapy

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1. PANMYCIN PHOSPHATE IN COMMON MIXED INFECTIONS

USUAL DOSAGE: ADULTS: 250 mg. every 6 hours or 500 mg. every 12 hours. CHILDREN Approximately 8 mg. per pound of body weight daily, in four equally divided doses every 6 hours, or two equally divided doses every 12 hours.

SUPPLIED: CAPSULES. 250 mg. in bottles of 16 and 100; 125 mg. in bottles of 25 and 100.

PANMYCIN KM SYRUP: Each teaspoonful (5 cc.) contains tetracycline equivalent to 125 mg. tetracycline hydrochloride, and potassium metaphosphate, 100 mg., mint flavor, in 2 fluidounce and pint bottles.

2. PANALBA IN POTENTIALLY SERIOUS INFECTIONS

USUAL DOSAGE: ADULTS: 1 or 2 capsules three or four times a day, depending on the type and severity of the infection. CHILDREN Proportionately less.

SUPPLIED: Each powder-blue-and-brown capsule contains Panmycin (tetracycline) Phosphate complex equivalent to 250 mg. tetracycline hydrochloride, and Albamycin (as novobiocin sodium) 125 mg.; in bottles of 16 and 100.

Also available: **PANALBA KM GRANULES** (Pediatric). When reconstituted, each 5 cc. teaspoonful contains Panmycin equivalent to tetracycline hydrochloride, 125 mg. and Albamycin (as novobiocin calcium) 62.5 mg., and potassium metaphosphate 100 mg.; in pleasantly flavored vehicle. Dosage is based upon amount of tetracycline—6 to 8 mg. per pound of body weight per day in 2 to 4 equally divided doses.

3. COMYCIN FOR THE 7 MONILIA-SUSCEPTIBLE TYPES

USUAL DOSAGE: ADULTS 1 or 2 capsules every 6 hours. CHILDREN Proportionately less.

SUPPLIED: Each brown-and-pink capsule contains tetracycline phosphate complex, equivalent to 250 mg. tetracycline hydrochloride, nystatin 250,000 units. In bottles of 16 and 100.

Upjohn

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THE DOCTOR'S LEISURE

The various ways in which doctors spend their leisure time was recently revealed in the Doctors' Hobbies Exhibition held in London under the auspices of Benger Laboratories, Limited. More than 1,000 entries were received, and these were divided into seven classes: painting, photography, woodwork, modeling, authorship, natural history and collecting. Many of the exhibits were of the highest order.

One of the winning exhibits was a Newtonian astronomical telescope weighing more than 560 pounds that had been made by a Scottish general practitioner. The concave lens was ground by the doctor himself, and the cogs of the mechanism were fashioned out of a lathe base and bakery mixing machines. Other examples of handiwork among the list of prize-winning entries included such diverse subjects as a magnificant altar frontal embroidered with petit point needlework and an altar cushion to match, a tape-recording machine made by a pathologist and an exhibit of metalwork by an orthopedic surgeon. Interesting collectors' pieces included a case of wine labels of the eighteenth and nineteenth centuries, a collection of sporting scarf pins of the eighteenth century and a magnificently carved Chinese trunk.

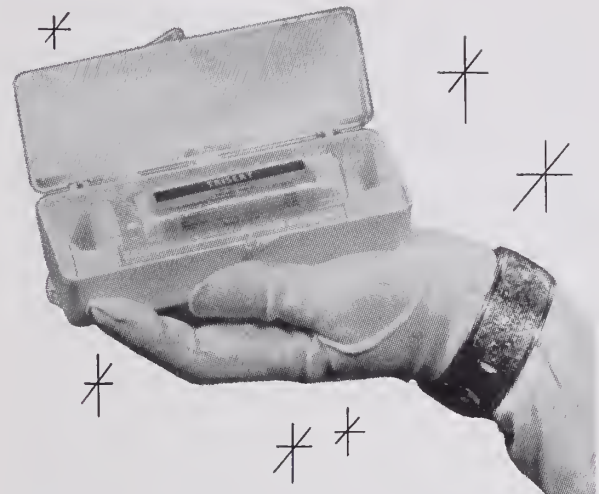
But the most remarkable entry was the pair of violins that won the premier award. They were made by a general practitioner who had tried to become a good violinist, but was handicapped when a childhood burn put his right index finger out of action. Instead he decided to build violins. The two shown were copied from a Stradivarius model of 1721, and each took a year to build. The varnish was of the doctor's own making; one instrument had 18 coats, and the other 20. One of the violins had been played by Yehudi Menuhin.

The diversity of talent not only revealed how differently doctors spend their leisure hours but also demonstrated how many crafts lost really first-rate exponents when the exhibitors turned first to medicine.

—*John Lister*, M.D., in NEW ENGLAND MED. J., 258:236, (Jan. 30) 1958.

AERO MEDICAL ASSOCIATION

At the annual meeting of the Aero Medical Association, to be held in the Statler Hotel, Washington, D. C., March 24-26, the program will reflect the fact that our halting steps through the atmosphere have led us at last to the threshold of manned space flight. Specialists will review studies of human responses to weightlessness, the vacuum of space and cosmic radiation. In addition, there will be sessions on acceleration, oxygen equipment, hypoxia and hyperoxia, sensory problems, hyper- and hypothermic stress, physiology, psychology, civil aviation medicine and clinical problems. Special entertainment will be provided for the wives of members.



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Problem is: she'll wait until discomfort is acute and then expect immediate relief. The answer is Trisert. Trisert preparations contain ALLANTOIN, an effective debriding agent which quickly dissolves heavy mucus often accompanying vaginal infections . . . METHYLBENZETHONIUM CHLORIDE, a quaternary germicide which removes unpleasant odors . . . SUCCINIC ACID, an aid in maintaining optimal vaginal pH . . . 9-AMINOACRIDINE HYDROCHLORIDE which has been included to supplement the bactericidal and trichomonacidal activity of other constituents. Treatment with Trisert Powder will control symptoms fast . . . usually within an hour . . . and provide effective initial treatment for 48 hours. After a second insufflation, the treatment is completed with at home use of Trisert Tablets which will generally bring the infection under complete control within 7 days.



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TRISERT POWDER INSUFFLATOR—Designed for use with Trisert Powder. Its use is urged for maximum efficiency.

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FLUORIDATION ON AN INDIVIDUAL SCALE

Two methods for the protection of children's teeth by means of fluorides are discussed in the January issue of NORTHWEST MEDICINE, the journal of the Washington, Oregon, Idaho and Alaska medical societies. Each is applicable to areas where families get their drinking water from family wells, or where there is no immediate prospect of the fluoridation of public water supplies.

Gunnar Santesson, M.D., of Stockholm, Sweden, says that in his country, where 50 per cent of the population is rural, and in Switzerland, sodium monofluorophosphate ($Na_2 PO_3F$) has been marketed in table salt in the proportion of 100 mg. of fluorine per kilogram of salt.[1] Though it may be objected that this form of administration would result in a relatively low consumption of fluorine by the infants who need it most, since babies consume comparatively little salt with their food, Dr. Santesson cites evidence that fluorides ingested between the ages of 5 and 8 years gave children the protection they needed against dental caries. Furthermore, he says that some of the fluorides consumed by a woman during pregnancy can ultimately be found in the deciduous teeth of her child.

Jesse Q. Sewell, M.D., of Harrington, Washington, proposes that physicians ask druggists to stock a solution containing 0.55 Gm. of sodium fluoride per gallon of distilled water (with three drops of harmless coloring matter added), and that pregnant mothers and children to age 14 be directed to take one teaspoonful (0.8 drams) per day.[2] If these directions were followed altogether faithfully, no individual would get so much fluorine as to harm him, but all should be counseled (1) not to use fluoridated tooth paste as long as they are taking the liquid; (2) not to have their teeth treated with fluoride by a dentist; and (3) not to take the liquid when away from home.

1. Santesson, G.: Aspects of salt fluoridation. Northwest Med., 57:39-42, (Jan.) 1958.
2. Sewell, J. Q.: Fluoride treatment of teeth on individual scale. *Ibid.*, 57:43-45, (Jan.) 1958.

RURAL HEALTH CONFERENCE IN MISSISSIPPI

The Thirteenth National Conference on Rural Health, sponsored by the AMA Council on Rural Health, will be held at the Heidelberg Hotel, in Jackson, Mississippi, March 6-8. Discussions will center on rural people's nutritional needs, the changing pattern of rural society, dentistry, safety, doctor-patient relationships, physician distribution and health-service costs.

The Thursday program will concern recent changes in rural society and nutritional problems. Friday's sessions will concern safety, what the doctor and the patient expect of one another, health-service costs and physician distribution. On Saturday, one of the topics will be preceptorship programs.

TAKE A LOOK AT
NEW DIMETANE
THE UNEXCELLED
ANTIHISTAMINE

THE PHARMACY LAW AND THE PLANT DOCTOR

The effects, as they pertain to industrial physicians, of a 1957 amendment to the Iowa law governing the practice of pharmacy were reviewed at a meeting called by Mr. John Rabe, secretary of the State Board of Pharmacy Examiners, at the State Capitol on January 23.

For the supplying of drugs to medical departments of businesses and industries, the new law (S.F. 68, 1957) requires no more than a slight change in billing procedures. Because a pharmaceutical jobber, retailer or manufacturer is forbidden to sell prescription (legend) medications to a corporation or to a layman not possessed of a proper license, it must bill consignments to the plant physician. The physician may then give the bill to the plant's purchasing agent or treasurer for payment. The check or currency need not pass through the doctor's hands in going from the plant's purchasing agent to the pharmaceutical supplier.

The amendment, it was explained at the meeting, requires no change in the conventional dispensing or administering of prescription medications to industrial patients.

The physicians who attended the meeting included Drs. C. Harlan Johnston, F. Tulley Hallam and Robert W. Hoffman, of Des Moines, and Dr. Herbert B. Allen, of Newton. Mr. Abels was present as a representative of the attorney general of Iowa.

RURAL EXPENDITURES FOR HEALTH CARE

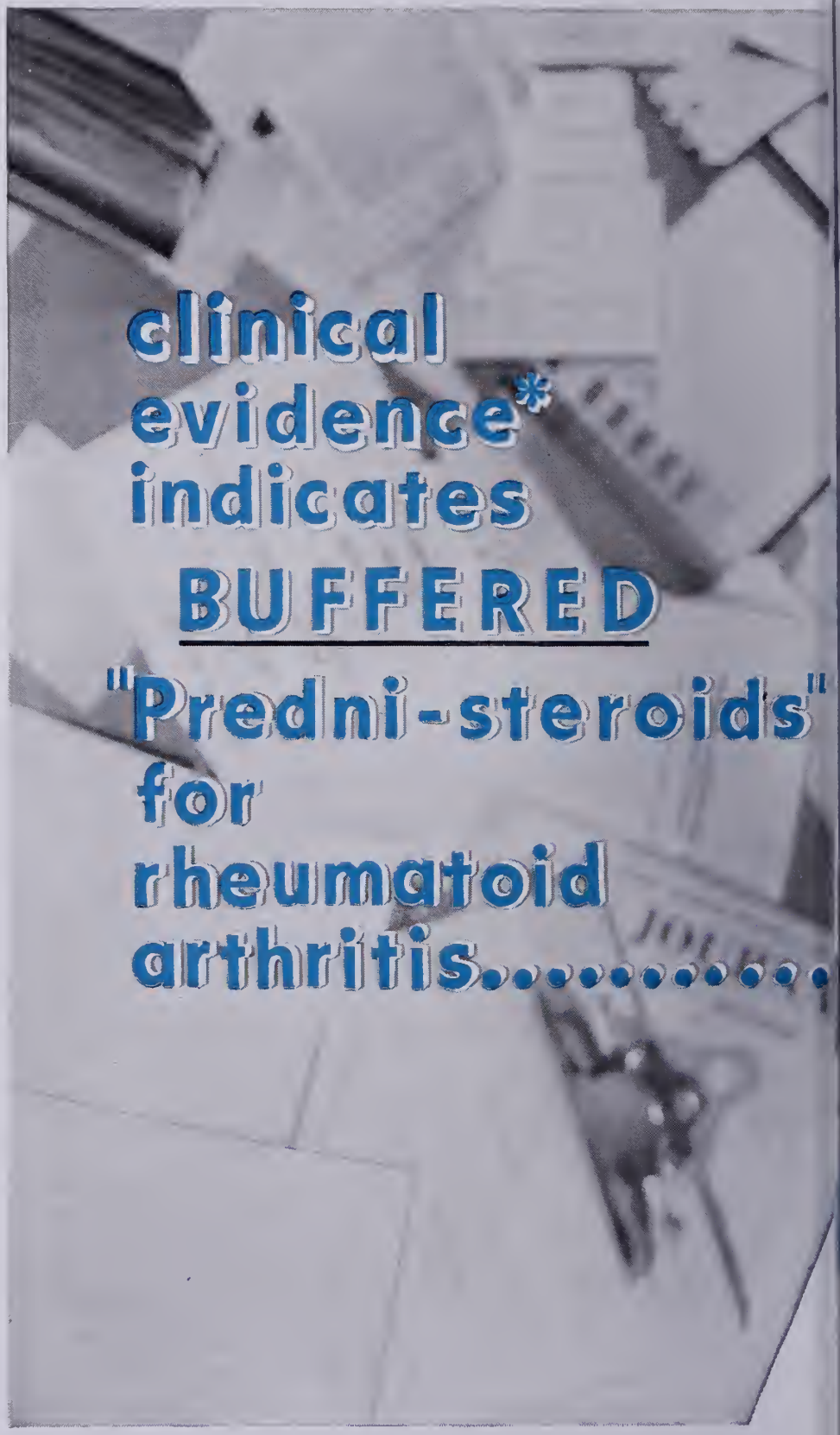
According to an article in the FARM BUREAU SPOKESMAN (Grundy Center) for February 1, the typical American farm family now spends more for medical care of each of its members than it spent for all of its members in 1941. The expenditure is $63 per person, as against $60 per family group 17 years ago. Those figures, the newspaper said, are the results of two surveys conducted by the United States Department of Agriculture.

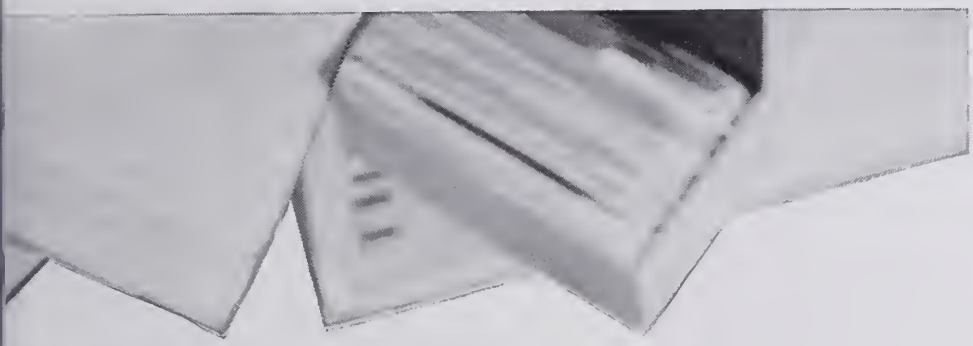
Generally higher prices were found to account for more than half of the increase, but there are other factors. Now more hospitals are available to farm people, and since half of them now are covered by pre-payment plans, they are now less hesitant, no doubt, about seeking help with their medical and surgical problems.

Just as in 1941, physicians' services are the largest item, being represented by 33 cents of the farmer's health dollar; hospitalization takes 27 cents, and drugs take 17 cents. All of those shares are larger than they were 17 years ago. The slices for dental care (12 cents), and for eye tests and glasses (6 cents) are smaller than they were in 1941.

Rural families, the paper reported, spend about the same amounts for health care as do urban ones, though such was not the case until recently.

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Gastric distress accompanying "predni-steroid" therapy is a definite clinical problem — well documented in a growing body of literature.

w of the beneficial re-
bserved when antacids
diets were used concom-
prednisone and predni-
feel that these measures
employed prophylacti-
fset any gastrointestinal
."—Dordick, J. R. *et al.*:
J. Med. 57:2049 (June

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

One way to make sure that patients receive full benefits of "predni-steroid" therapy plus positive protection against gastric distress is by prescribing CO-DELTRA or CO-HYDELTRA.

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CLASS IN MEDICAL TERMINOLOGY

A class in medical terminology for doctors' secretaries is now being organized in Des Moines and will start soon. The group will meet one night a week for three months, from 7 to 9 p.m., and will be taught by Mrs. Etta M. Miller, who has conducted such courses throughout the last 10 years. For further information, inquire of Mrs. Miller. Her address is 1102 West Douglas Avenue, Des Moines 13, and her phone number is CHerry 3-4018.

STERILIZATION OF MENTAL DEFICIENTS

Commenting upon the recent criticisms of Mr. Alfred Sasser, superintendent of the Glenwood State School, for having recommended fewer sterilizations that his predecessors, Dr. J. O. Cromwell has declared: "We are not going to solve the problems of mental illness by sterilizing people." He went on to say, "I just don't know that people have hereditary mental illness. The evidence is not very convincing."*

In 1957, only one patient at the Independence Mental Health Institute, of which Dr. Cromwell is medical director, and only one at the Clarinda Mental Health Institute were recommended for sterilization. This fact may in part reflect the attitudes of the men in charge there, but it doesn't necessarily do so, for the populations of those institutions are psychotics, of whom probably no more than a small share are mental deficients. As regards Glenwood, Dr. Cromwell pointed out that Mr. Sasser must be governed by the advice of his medical staff in recommending sterilizations.

Dr. Karl Catlin, head of the Clarinda Institute, is quoted as having said, "We don't hesitate if we think it is for the best interests of the patient. There may be an emotional reaction in the patient that should be considered in advance, however. There is some difference of opinion as to when sterilization should be performed and when it is sound."

The Eugenics Board, composed of the superintendents of the mental hospitals, the state health commissioner, the superintendent of the Rockwell City women's reformatory and the director of the State Psychopathic Hospital at Iowa City, approved 51 sterilizations during 1957, of which 31 were performed upon inmates of state institutions. The breakdown shows 14 at Cherokee; 3 at Glenwood; 6 at Mt. Pleasant; 6 at Woodward; and one each at Clarinda and Independence. There were 77 approved sterilizations in 1956, and the high figure during recent years was 143, in 1953. Of the 1,747 sterilizations performed since 1934, there have been 1,305 performed upon females and only 442 upon males.

* "Doubt Cast on Right of Sterilization," DES MOINES REGISTER, January 24, 1958.

PAN AMERICAN MEDICAL WOMEN'S ALLIANCE

The Sixth Congress of the Pan American Medical Women's Alliance will be held at the McAllister Hotel, in Miami, April 14-17. The chairman of the Scientific Program Committee, from whom copies of the program can be secured, is Dr. Ethel John Wood, 3678 Willowcrest, North Hollywood, California. The chairman of the local arrangements committee is Dr. Alma Trappolini, 2291 Coral Way, Miami.

CAMP FOR DIABETIC CHILDREN

The Summer Camp for Diabetic Children will be conducted for the tenth year, from July 20 through August 10, 1958, at Holiday Home, Lake Geneva, Wisconsin. Boys and girls from 8 through 14 years of age are eligible.

As in previous years, the camp will be staffed by resident physicians, a nurse, two dieticians and a laboratory consultant, in addition to the regular counseling and domestic personnel of Holiday Home. Rates are arranged in accordance with individual circumstances.

Applications may be obtained from the Chicago Diabetes Association, 5 South Wabash Avenue, Chicago 3.

PHI LAMBDA KAPPA

The Sixth Annual Interim Scientific Meeting of Phi Lambda Kappa, national medical fraternity, will be held at the Deauville Hotel, Miami Beach, April 13-20, 1958. The five-day program, starting April 14, will be for the benefit of the general practitioner and will feature papers and symposia by specialists. All members of the medical and dental professions are welcome. Additional information can be secured from Dr. Samuel L. Lemel, national secretary, 1030 Euclid Avenue, Cleveland 15.

ON TO HONOLULU!

The Summer Conference of the Hawaii Medical Association has been timed to take place, in Honolulu, at a convenient time for mainland doctors to attend it, following the San Francisco meeting of the AMA. The AMA meeting will conclude on June 27, and the Hawaiian one will take place on July 1-3.

The program will include lectures by distinguished men such as Dr. Frederick C. Robbins, of Cleveland and Dr. Ernest Jawetz, of San Francisco, and the Hawaiian physicians are famous for the entertainment they provide to visiting colleagues.

For additional information, conference registration forms and travel reservations, address Lee Kirkland Travel, Box 3433, Chicago 54.

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THE SEX DIFFERENTIAL IN LONGEVITY

A survey by the Health Information Foundation has revealed that the widening gap between the numbers of male and female deaths is the consequence of a shift in the leading causes of death. Most mortalities used to be due to communicable diseases, but they now are the consequence of degenerative ones.

In 1900, pneumonia and influenza, tuberculosis, and diarrhea and enteritis accounted for nearly a third of fatalities, but they were no more than slightly more numerous among men than among women. Nowadays, heart disease, cancer, vascular lesions affecting the central nervous system, accidents, and pneumonia and influenza are the principal killers, and all of them afflict many more men than women. In 1900, heart disease caused an excess of male mortality of only 11 per cent, but in 1955 the sex differential had climbed to 78 per cent.

By far the highest excess of male deaths is in the category of accidents. Four-fifths of all males who die between 10 and 24 years of age die in mishaps, and three-quarters of those who die between 25 and 34 are accidentally killed. Thus, it may be expected that as long as accidents increase in frequency and seriousness, more and more disparity between the sexes will develop.

Cancer presents another changed picture. In 1900, malignant neoplasms caused about 4 per cent of all deaths, and 65 per cent more women than men succumbed to them. By 1955, cancer accounted for 16 per cent of all deaths, and the over-all mortalities among men were 20 per cent greater than among women. In the 60-74 age group, the differential was 50 per cent.

The only major disease that has a higher age-adjusted mortality for women than for men is diabetes mellitus—35 per cent higher.

In consequence, women now outnumber men at all ages past the mid-twenties. Among persons 65 years of age and older, the excess of women is more than 1,000,000, and if current trends continue, it will increase to 3,500,000 by 1975. Even at mid-life (ages 45-64), women will outnumber men by 2,200,000, or 11 per cent, the Foundation reports.

Research currently is seeking to learn whether the sex differential in mortality has some hitherto unassessed biological or social (environmental) basis.

Plan to Attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines, April 20-23

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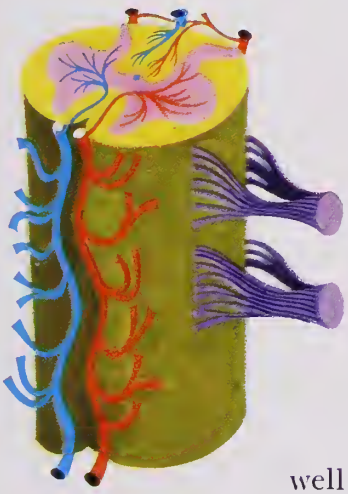
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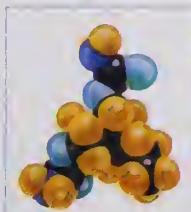
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*Belafsky, H. A., Breslow, S. and Shangold, J. E.: Meprobamate in pregnancy. Obst. & Gynec. 9:703, June 1957.

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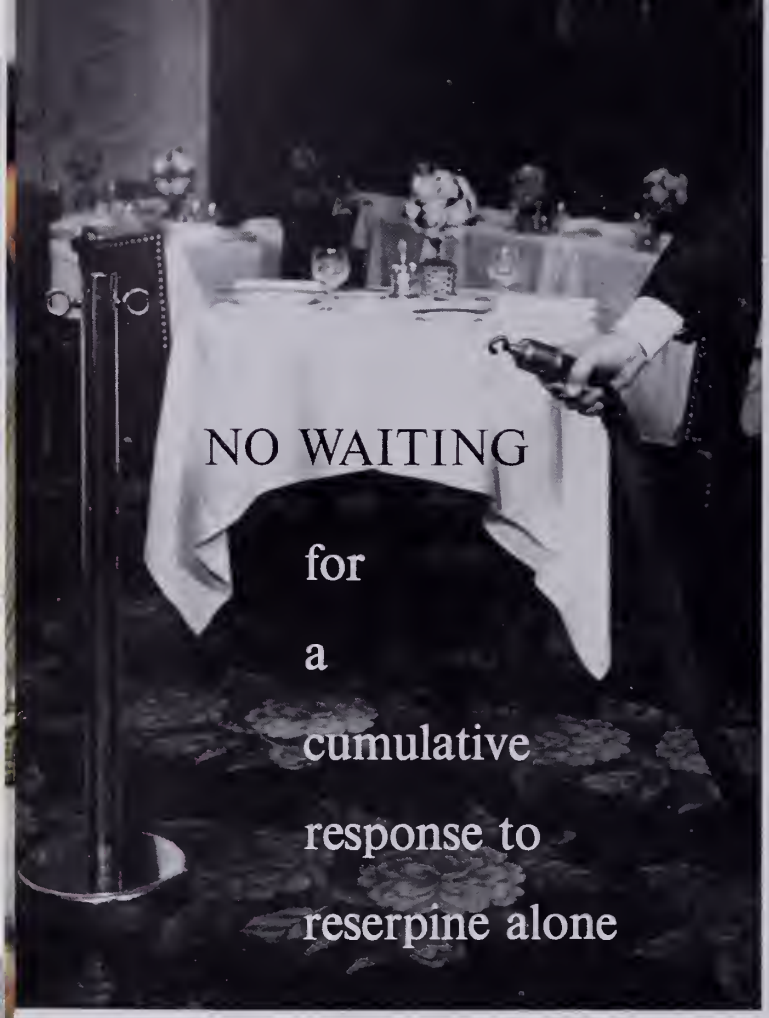
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1. Comparative Effects of Various Rauwolfia Alkaloids in Hypertension; *Diseases of the Chest*; in press.

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801060 *Trademark

AMA PRESENTS NEW RADIO HEALTH SERIES

To give local communities a monthly report on the newest and best in medicine, the AMA has started issuing a new radio transcription series "Health Magazine of the Air." Based on current items from TODAY'S HEALTH, the new 15-minute programs feature H. V. Kaltenborn, veteran newscaster, and W. W. Bauer, M.D., director of the AMA Bureau of Health Education.

In addition, seasonal spot health announcements —three lasting 15 seconds each, three 30 seconds and three one minute—will be put on the reverse sides of the platters. These spots will be delivered by popular movie personalities who are contributing their time as a public service.

First shipments of the new transcriptions were made to approximately 400 radio stations during February. Succeeding platters will be released on about the fifth day of each month through December, 1958. Although the present selection of stations has been based on the list of those that have been carrying AMA radio transcriptions, local medical societies are invited to apply if they find that their local stations are being left out. Address Dr. Bauer.

AMA PLANS MEETING ON GERONTOLOGY

Problems of the aging and ways in which the medical profession can assume leadership in helping to solve them will be discussed at a regional meeting of the AMA Committee on Aging in Birmingham, Alabama, on March 29-30. Though the meeting will be held chiefly for the benefit of physicians from Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North and South Carolina, and Tennessee, doctors from the Midwest who happen to be in the vicinity will be welcome to sit in. Previous conferences of this sort have been held in Seattle, Dallas and Philadelphia, and published proceedings of them can be secured from the Council.

ACCIDENTAL DEATHS IN THE U. S.

According to statistics compiled by the Metropolitan Life Insurance Company, approximately 94,000 residents of the United States met their deaths by accident during 1957, about 1,000 fewer than in 1956. The reduction was the first in three years, and it occurred despite a marked increase in the population. The figure had previously advanced from 90,000 in 1954 to nearly 93,500 in 1955 and to 95,000 in 1956. The rate last year was 55 per 100,000 people, or close to the all-time low of 1954.

Motor-vehicle accidents are still the most important cause of such deaths, but it is partly in this category that improvement has taken place. There were 38,500 such deaths during 1957 (about 40 per cent of the total), but a reduction of 1,000 had occurred even there. For the first time in three years, there was a reduction in the death rate per hundred million vehicle miles.

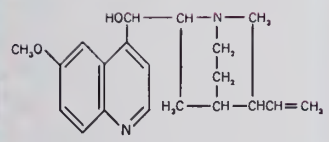
Progress in SYNTHETIC CHEMISTRY EQUALS Progress in CHEMOTHERAPEUTICS

"It has a high degree of clinical safety. . . It is considered to be the preferred antimalarial drug for treatment of disorders of connective tissue, because of the low incidence of gastrointestinal distress as compared to that with chloroquine phosphate."[1]

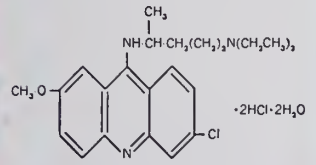
". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

". . . the least toxic of its class . . ."[3]

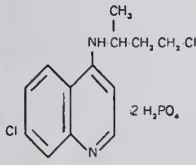
QUININE



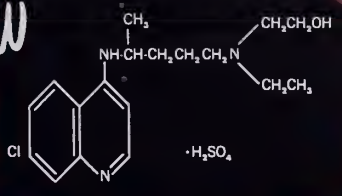
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Plaquenil® SULFATE

Remarkably effective in RHEUMATOID ARTHRITIS

SIDE EFFECTS MARKEDLY REDUCED

DOSE: **Initial** – 400 to 600 mg. (2 or 3 tablets) Plaquenil sulfate daily.
Maintenance – 200 to 400 mg. (1 or 2 tablets) daily.

SUPPLIED: Tablets of 200 mg., bottles of 100.

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ES:
. A. L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
al: *Bull A. Mil. Dermatologists*, The Shock Section 5:25, Nov., 1956.
t, Theodore: Arch. Dermat. 73:572, June, 1956.

Atabrine (brand of quinacrine), Aralen (brand of chloroquine), and Plaquenil (brand of hydroxychloroquine), trademarks reg. U.S. Pat. Off.

the chill

the cough

the aching muscles

the fever



Viral upper respiratory infection. . . . For this patient, your management will be twofold—prompt symptomatic relief plus the prevention and treatment of bacterial complications. PEN·VEE·*Cidin* backs your attack by broad, multiple action. It relieves aches and pains, and reduces fever. It counters depression and fatigue. It alleviates cough. It calms the emotional unrest. And it dependably combats bacterial invasion because it is the only preparation of its kind to contain penicillin V.

SUPPLIED: Capsules, bottles of 36. Each capsule contains 62.5 mg. (100,000 units) of penicillin V, 194 mg. of salicylamide, 6.25 mg. of promethazine hydrochloride, 130 mg. of phenacetin, and 3 mg. of mephentermine sulfate.

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 1:15 p.m.

"Sixteen—Growing Up"

March 6 ..... Skin Problems, Cleanliness
March 13 ..... Breaking Away From Home

"Help Yourself to Health"

March 20 ..... The Self-Help Idea
March 27 ..... Raining Rural Doctors

WSUI—Iowa City, Iowa

Monday at 3:30 p.m.

"Gold Medal Doctors"

March 3 ..... Allen O. Whipple, M.D.

"Sixteen—Growing Up"

March 10 ..... Your Place in the Family
March 17 ..... What's My Vocation?
March 24 ..... Food, Nutrition and Appearance
March 31 ..... Money

TELEVISION

KQTV—Fort Dodge, Iowa

Wednesday at 7:00 p.m.

March 5 ..Radioactive Diagnosis and Treatment
March 12 ..... Instrumental Aids in Diagnosis
March 19 ..... Internal Diagnostic Methods
March 26 ..... The Healing Team

KCRG-TV—Cedar Rapids, Iowa

Sunday at 1:00 p.m.

March 2 ..... Intervertebral Disc
March 9 ..... Aid for the Handicapped
March 16 .. Radioactive Diagnosis and Treatment
March 23 ..... Instrumental Aids in Diagnosis
March 30 ..... Internal Diagnostic Methods

KVTV—Sioux City, Iowa

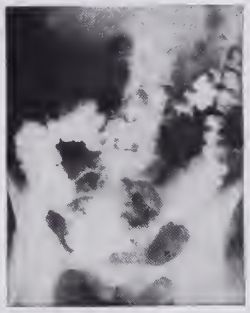
Sunday at 1:00 p.m.

March 2 ..... Case of the Doubting Doctor
March 9 ..... The Healing Team
March 16 ..... Heart Surgery
March 23 ..... Poison Information Center
March 30 ..... Fractures

The foregoing schedules are subject to change at the discretion of the station managers.

when anxiety and tension "erupts" in the G. I. tract...

in spastic and irritable colon



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Dosage: 1 tablet t.i.d. at mealtime. 2 tablets at bedtime. ***Supplied:*** Bottles of 100, 1,000.

Lederle

*Trademark ® Registered Trademark for Tridihexethyl Iodide Lederle

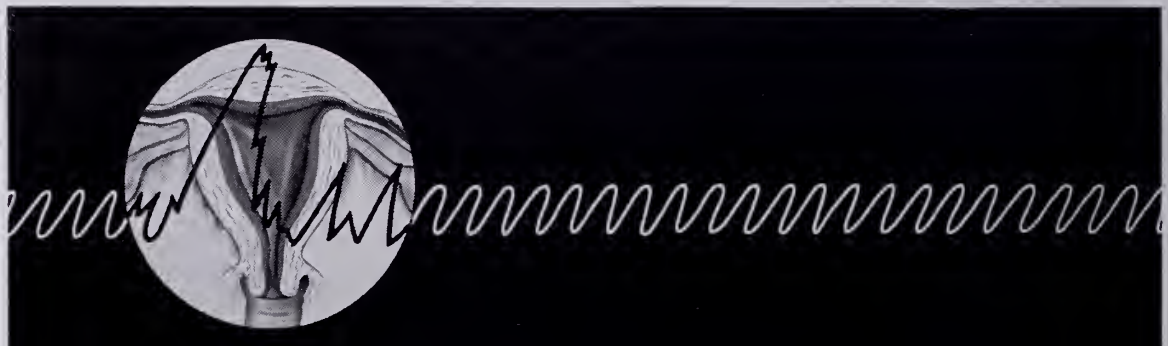
LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

Coming Meetings

(Continued from page 129)

Apr. 14-18	**Symposium on Tuberculosis and Other Pulmonary Diseases in Childhood.** N.Y.U., N.Y.C.
Apr. 14-19	**Twenty-second Annual Graduate Convention in Otology, Rhinology and Laryngology.** U. of Cincinnati, Cincinnati
Apr. 14-19	**Thirty-first Annual Spring Congress in Ophthalmology and Otolaryngology, Otology, Rhinology, Bronchoscopy, Esophagoscopy and Facio-maxillary Surgery (Gill Memorial Eye, Ear and Throat Hospital).** Hotel Patrick Henry, Roanoke, Virginia
Apr. 16	**Proctology.** U. of California, Los Angeles
Apr. 16-17	**Diabetes Mellitus.** Indiana University, Indianapolis
Apr. 16-17	**Medical and Surgical Advances in the Management of Peripheral Vascular Disorders (Cleveland Clinic Foundation).** Frank E. Bunts Educational Institute, Cleveland
Apr. 16-19	**Second Annual Postgraduate Course in Fractures and Other Trauma (Chicago Committee on Trauma of the American College of Surgeons).** John B. Murphy Memorial Auditorium, Chicago
Apr. 16-19	**International Congress of Legal and Social Medicine.** Madrid, Spain
Apr. 17-19	**Otolaryngology.** U. of Michigan, Ann Arbor
Apr. 18-20	**Dermatology for the General Practitioner.** U. of Southern California, Los Angeles
Apr. 19-25	**Annual Meeting, Industrial Health Conference,** Atlantic City
Apr. 20-25	**Fourteenth Congress and Graduate Course in Allergy (The American College of Allergists).** The Shelburne, Atlantic City
Apr. 21-23	**Annual Spring Session, American Academy of Pediatrics.** Hotel Statler, New York City
Apr. 21-23	**Harvey Cushing Society.** Mayflower Hotel, Washington, D. C.
Apr. 21-23	**American College of Obstetrics and Gynecology.** Los Angeles
Apr. 21-23	**Ophthalmology.** U. of Michigan, Ann Arbor
Apr. 21-25	**EKG Clinics, Course "C."** Beth Israel Hospital, Boston
Apr. 21-25	**Gynecology.** State University of New York, Upstate Medical Center, Syracuse
Apr. 21-26	**Electrocardiography II.** U. of Michigan, Ann Arbor
Apr. 21-May 2	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Apr. 23-24	**Minor Surgery and Office Gynecology.** Rochester General Hospital, Northside Division, Rochester, New York
Apr. 23-25	**Twenty-seventh Annual National Venereal Disease Postgraduate Conference (U. of Texas Postgraduate School of Medicine, Baylor U. College of Medicine, Texas State Department of Health, Texas Medical Association and the U. S. Public Health Service).** U. of Texas, M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston
Apr. 23-26	**Fifth Biennial Cardiovascular Seminar (Miami Heart Association).** Miami Hotel, Miami
Apr. 24	**Obstetrics (U. of Nebraska College of Medicine).** Lincoln General Hospital, Lincoln
Apr. 24-26	**Fifth International Congress of Internal Medicine (International Society of Internal Medicine).** Sheraton Hotel, Philadelphia
Apr. 24-May 10	**Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 26	**Occupational Therapists and Related Groups Symposium.** U. of California, Los Angeles
Apr. 26-27	**Annual Meeting, American Society of Internal Medicine.** Chalfonte-Haddon Hall, Atlantic City
Apr. 27-30	**Annual Meeting, California Medical Association.** Ambassador Hotel, Los Angeles
Apr. 27-30	**Annual Session, Medical Association of Georgia.** Macon
Apr. 28-29	**Treatment of Varicose Veins.** Cook County Graduate School of Medicine, Chicago
Apr. 28-May 1	**American Urological Association.** Roosevelt Hotel, New Orleans
Apr. 28-May 1	**Annual Session, Nebraska State Medical Association.** Hotel Cornhusker, Lincoln.
Apr. 28-May 2	**Acute Neurological Problems of General Practice.** N.Y.U., N.Y.C.
Apr. 28-May 2	**Allergy.** U. of Michigan, Ann Arbor
Apr. 28-May 2	**Thirty-ninth Annual Session, American College of Physicians.** Atlantic City
Apr. 28-May 2	**Culdoscopy.** N.Y.U., N.Y.C.
Apr. 28-May 2	**Health Congress of the Royal Society of Health.** Eastbourne, England
Apr. 28-May 2	**Pediatrics.** U. of Colorado School of Medicine, Denver
Apr. 28-May 2	**Vaginal Approach to Pelvic Surgery.** Cook County Graduate School of Medicine, Chicago
Apr. 30-May 3	**Neurology.** Tufts University, Boston

in dysmenorrhea



Pavatrine® with Phenobarbital

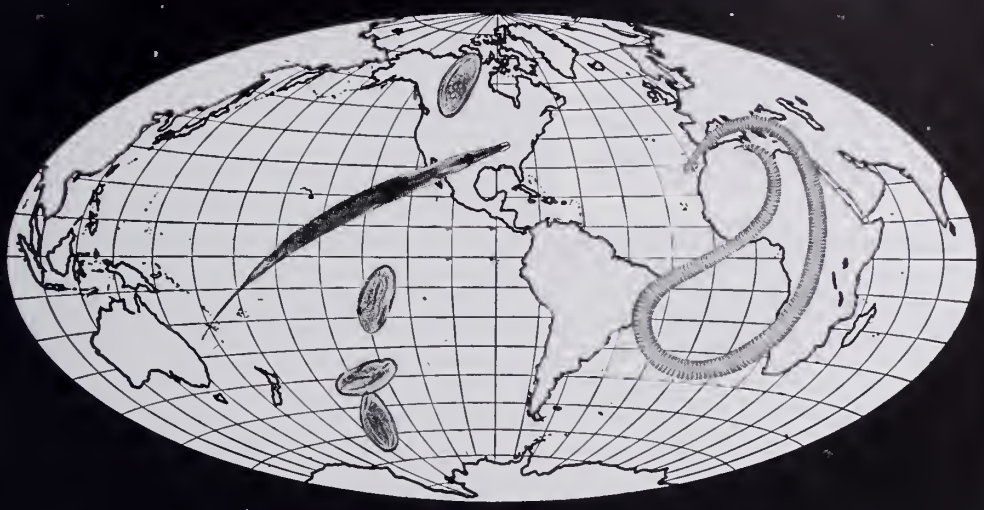
125 mg. 15 mg.

- *relaxes the hypertonic uterus thus relieving pain*
- *furnishes gentle sedation*

Dosage: one tablet three times a day beginning three to five days before onset of menstruation.

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for "This Wormy World"



Pleasant tasting

'ANTEPAR'® brand

PIPERAZINE

SYRUP · TABLETS · WAFERS

Eliminate **PINWORMS IN ONE WEEK**
ROUNDWORMS IN ONE OR TWO DAYS

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'ANTEPAR' SYRUP – Piperazine Citrate, 100 mg. per cc.
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If
Monilial overgrowth
is a factor

Achrostatin* V

TETRACYCLINE (PHOSPHATE-BUFFERED) AND NYSTATIN

Combines ACHROMYCIN V with NYSTATIN

SUPPLIED:

CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin. ORAL SUSPENSION (cherry-mint flavored) Each 5 cc. teaspoonful contains 125 mg. tetracycline HCl equivalent (phosphate-buffered) and 125,000 units Nystatin.

DOSAGE:

Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules or 8 tsp. of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

ACHROSTATIN V combines ACHROMYCIN† V ... the new rapid-acting oral form of ACHROMYCIN† Tetracycline ... noted for its outstanding effectiveness against more than 50 different infections ... and NYSTATIN ... the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients prone to monilial overgrowth during a protracted course of antibiotic treatment.

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*Trademark †Reg. U. S. Pat. Off.

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Beautiful two bedroom, completely modern cabanas. Beautiful setting among the trees with a clean sandy beach, T-docks, close to all kinds of summer fun. Hospital clean.

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LIST YOUR WANTS

(Additional Want Ads on page lxxxiii)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

WANTED: Associate in general practice. Northeast Iowa town of 5,000; new office fully equipped; local hospital. Good salary to start and partnership after first year. Address: No. 1,074, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

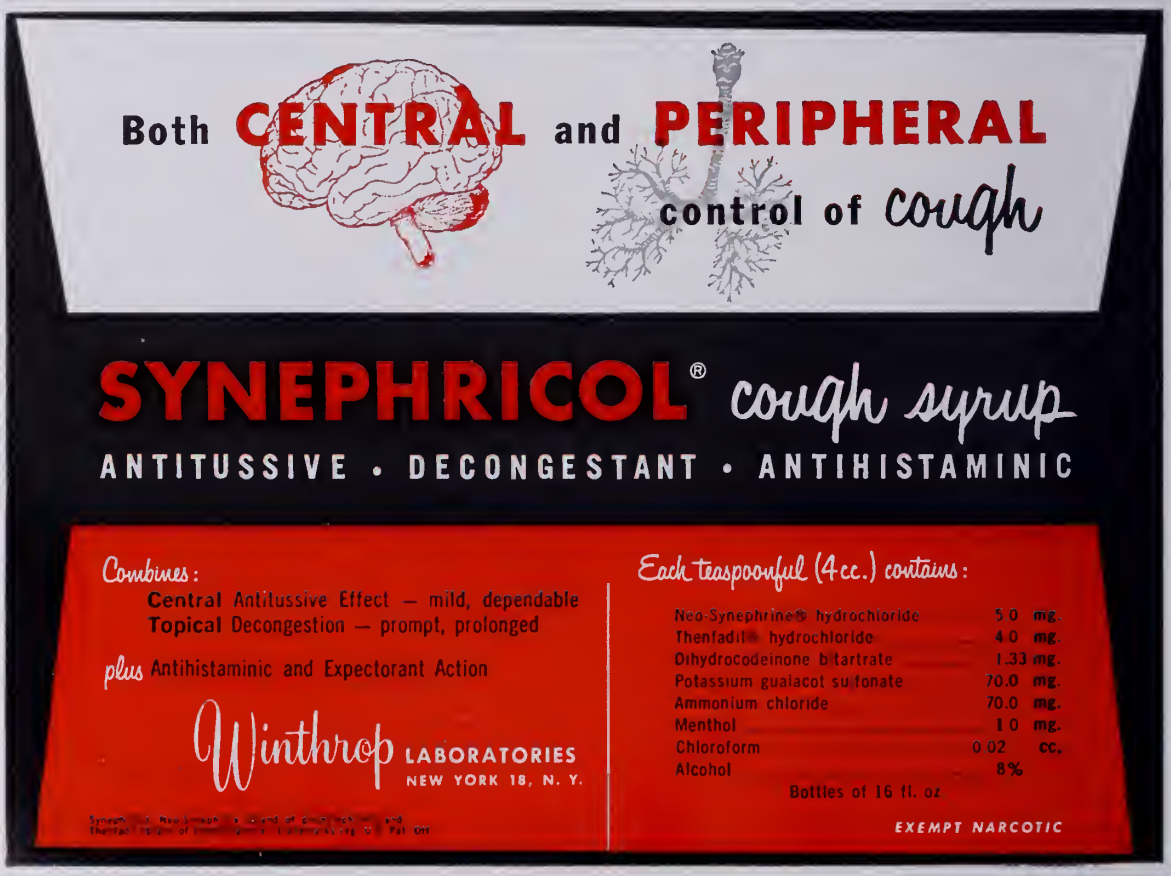
WANTED: General Practitioner. Wonderful opportunity in rich farming community. It would pay you to stop and look into this opening. Address: Orville C. Bandrup, Secretary of the Ayrshire Commercial Club, Ayrshire, Iowa.

FOR LEASE: Colorado-Lakewood Medical Building can custom-tailor your office suite. Progressive, exclusive suburban Denver area. Past few months beyond expectations. Need G-P, EENT, O.B.-Gynecologist, Heart Specialist & Skin Specialist. Reasonable rent, restricted building, air-conditioning, ample parking. Reply: Management Dept., Lakewood Realty, 7845 West Colfax, Denver 15, Colorado.

WANTED: Young physician to work with elderly doctor in north-central Iowa town, and to take over the practice when he has become well established. Retiring physician will help with financing if necessary. Fine farming community, good schools and churches, hospital 15 minutes distant. Practice now grosses between $30,000 and $34,000, and can be greatly increased. Applicant must furnish credentials, and if accepted can arrange to start work either at once or soon. Address: No. 1,072, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

WANTED: E.N.T., bronchoscopy and esophagoscopy instruments. Write: M. E. Godbey, M.D., University Hospitals, Iowa City, Iowa.



LIST YOUR WANTS

(Additional Want Ads on page lxxxii)

WANTED: General practitioner with special interest in internal medicine, to fill vacancy in four-man clinic in midwestern Iowa community of 2,500. Hospital, laboratory and x-ray facilities available. Beginning salary, with eventual partnership. Address: No. 1,075, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

RADIOLOGIST, certified in diagnosis and therapy, desires association with established radiologist, group of radiologists, clinic or hospital. Income not of primary importance. Address: No. 1,069, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

FOR SALE: General Practitioner's instruments and reception-room and examining-room furniture. Address: No. 1027, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

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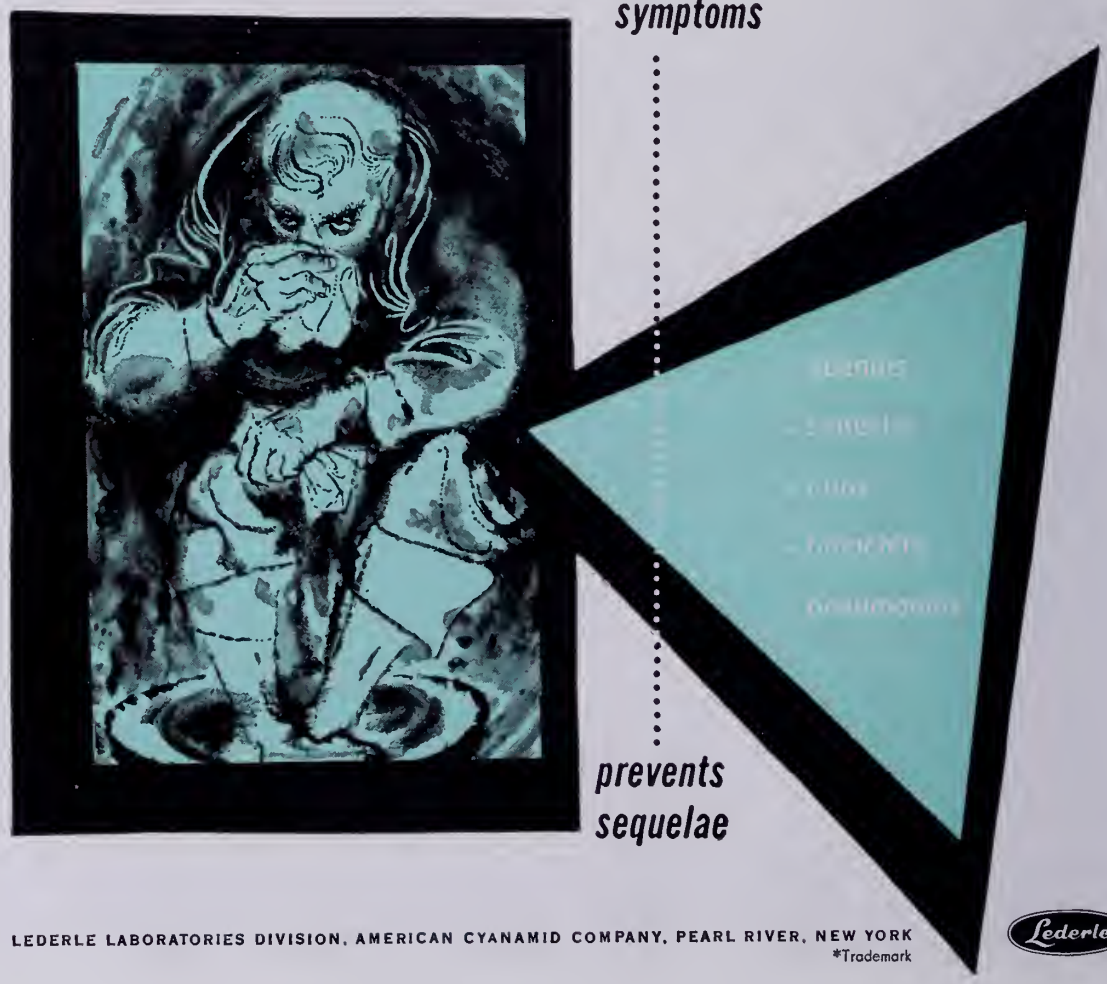
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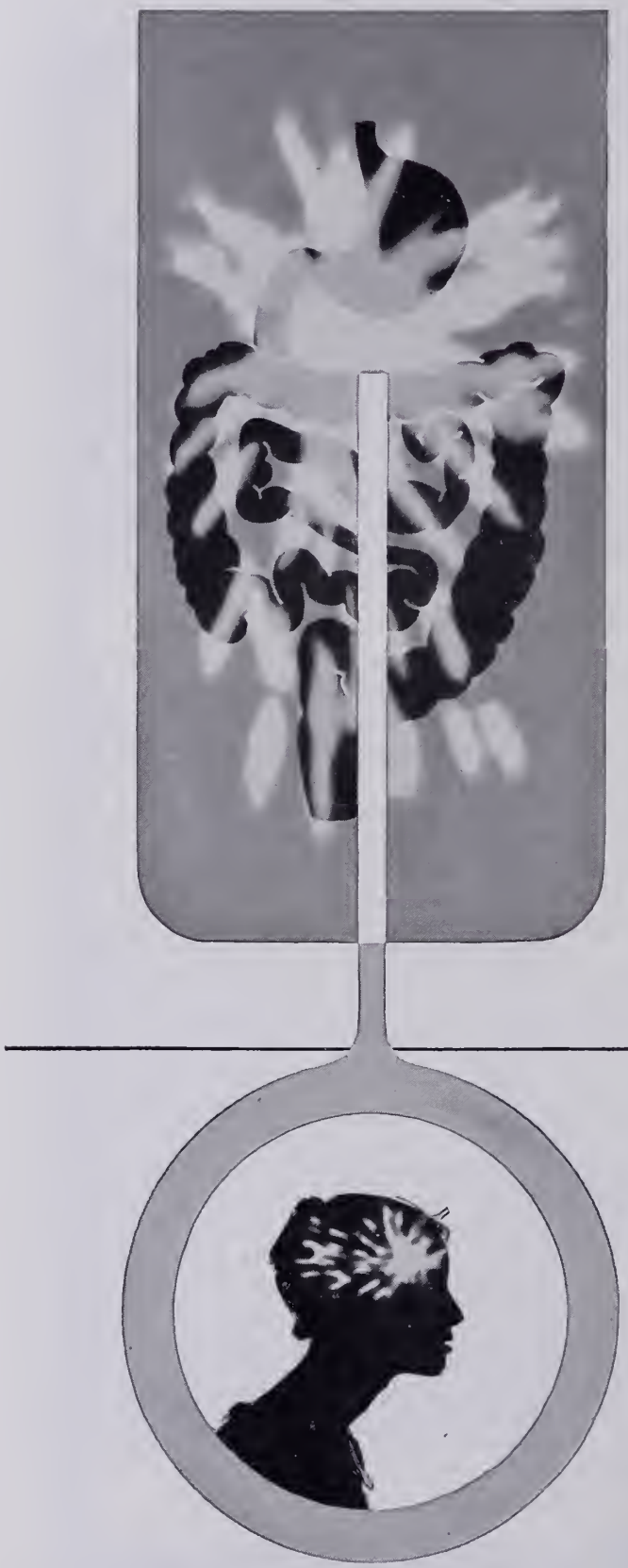
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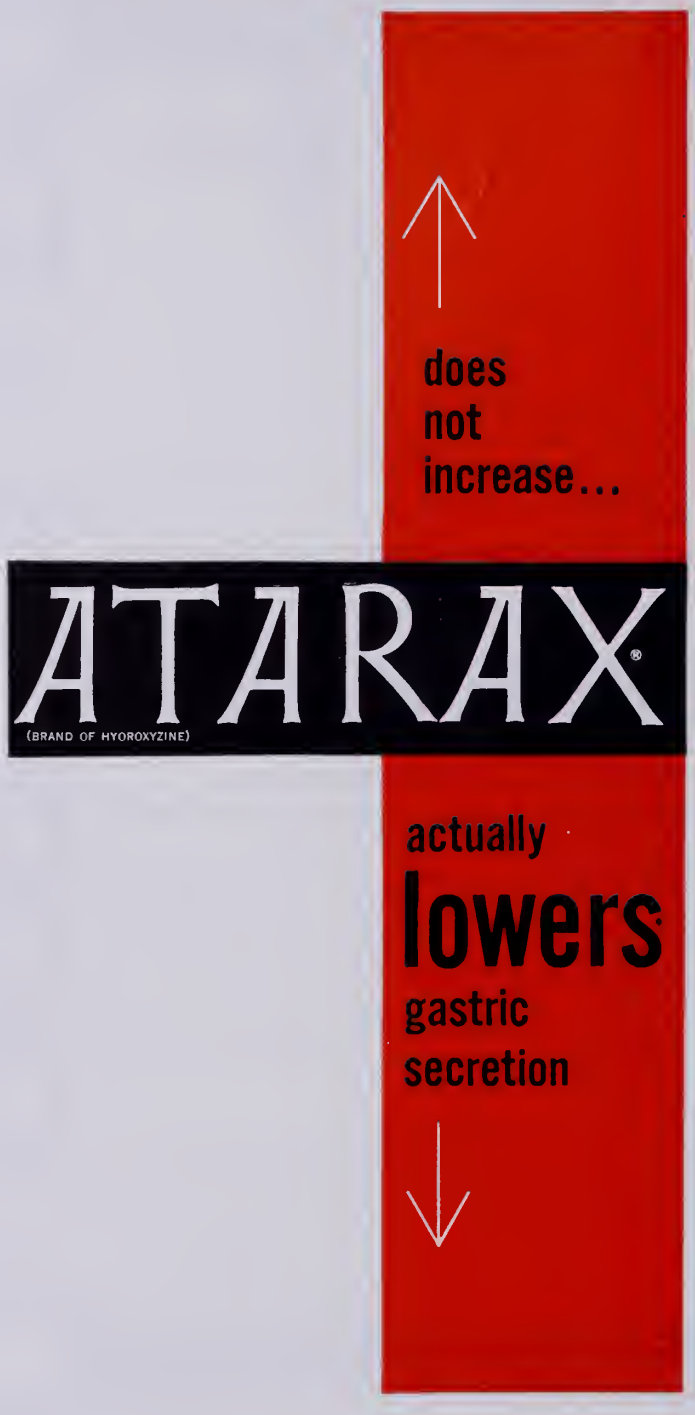
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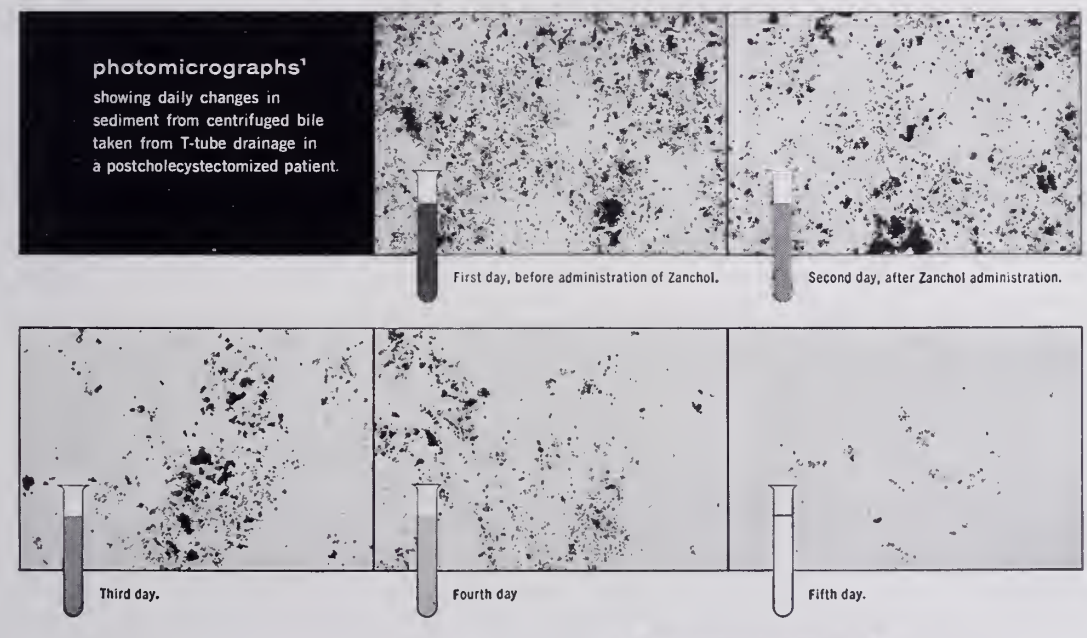
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1. McGowan, J. M.: Clinical Significance of Changes in Common Duct Bile Resulting from a New Synthetic Choleretic, Surg., Gynec. & Obst. *103*:163 (Aug.) 1956.

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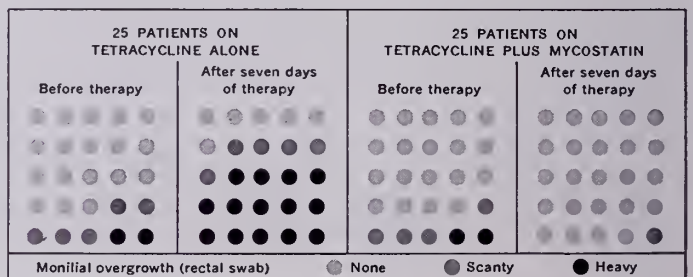
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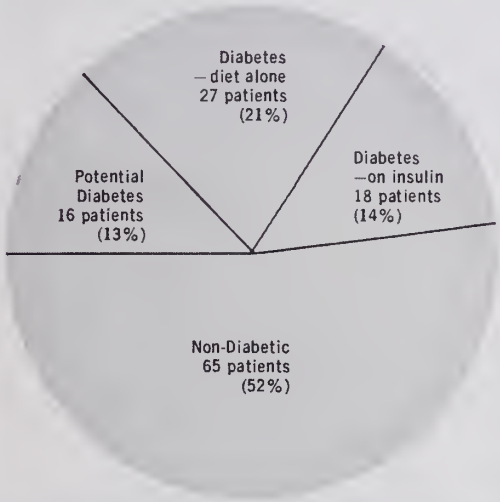


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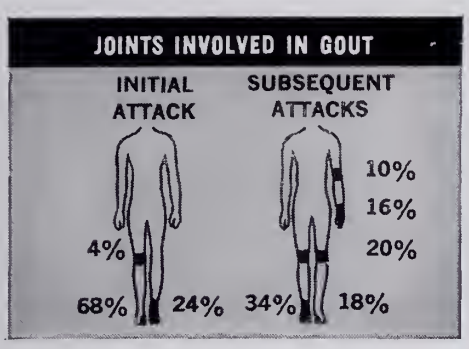
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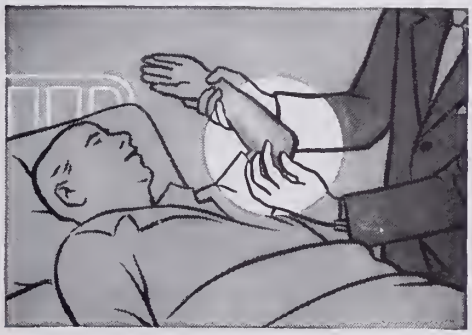
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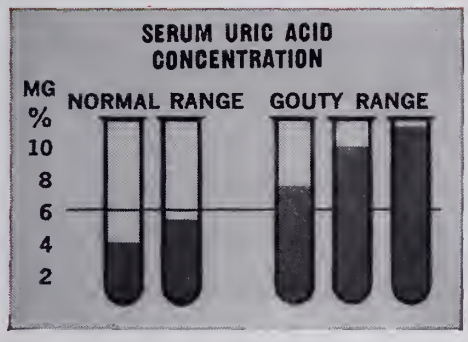
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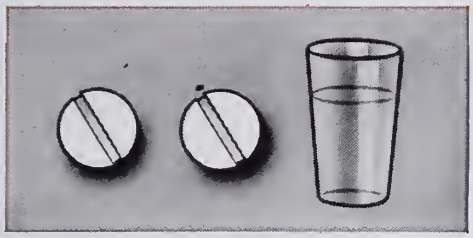
1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



3. Elevated serum uric acid levels.



4. Colchicine test: full dose (0.5 mg.) every 1 to 2 hours until pain is relieved or nausea, vomiting or diarrhea occur. The test requires usually 8 to 16 doses. Pain relief is highly indicative of gout.

FROM THESE FINDINGS...SUSPECT GOUT:

℞ BENEMID®

PROBENECID

A SPECIFIC FOR GOUT

Once findings point to gout, long-term management can be started with BENEMID. This effective uricosuric agent has these unique benefits:

- Urinary excretion of uric acid is approximately doubled.
- Serum uric acid levels are reduced.
- Uric acid deposits (tophi) in tissues are mobilized.
- Formation of new tophi can often be prevented.
- Fewer attacks and severity is reduced.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

BENEMID is a trade-mark of Merck & Co., Inc.

MSD

MERCK SHARP & DOHME

DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.



"finger-itis"

there's pain and inflammation here... it could be mild or severe, acute or chronic, primary or secondary fibrositis—or even early rheumatoid arthritis

more potent and comprehensive treatment than salicylate alone

. . . assured anti-inflammatory effect of low-dosage corticosteroid[1]

. . . additive antirheumatic action of corticosteroid plus salicylate[2-5] brings rapid pain relief; aids restoration of function.

. . . wide range of applicati including the entire fibrositis syndrome as well as early or mild rheumatoid arthritis

more manageable corticosteroid dosage

. . . much less likelihood of treatment-interruptir side effects[1-6]

. . . simple, flexible dosage schedule



in any case
it calls for

Sigmagen®

corticoid-salicylate compound

tablets

Composition

METICORTEN® (prednisone)	0.75 mg.
Acetylsalicylic acid	325 mg.
Aluminum hydroxide	75 mg.
Ascorbic acid	20 mg.

Packaging: SIGMAGEN Tablets, bottles of 100 and 1000.

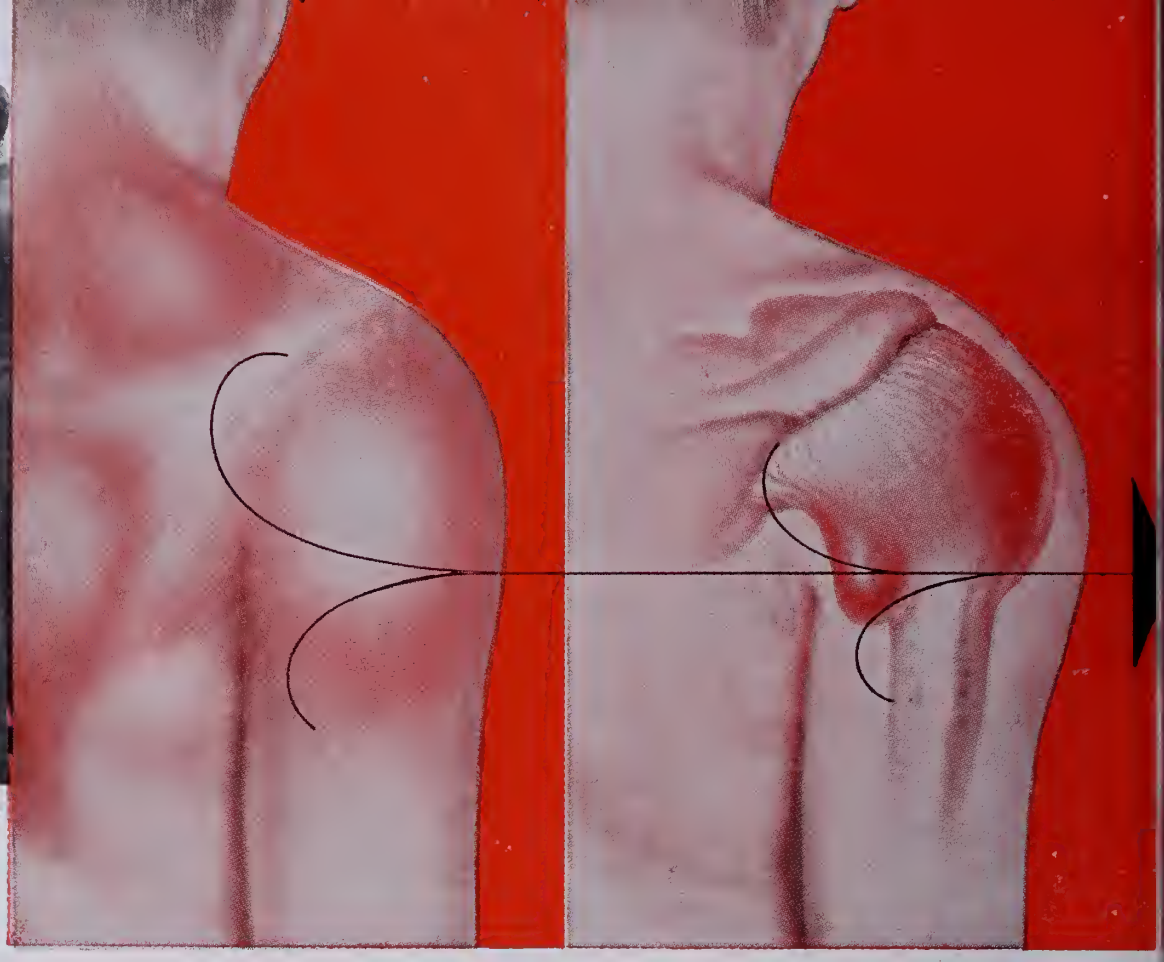
References: 1. Spies, T. D., et al.: J.A.M.A. 159:645, 1955. 2. Spies, T. D., et al.: Postgrad. Med. 17:1, 1955. 3. Gelli, G., and Della Santa, L.: Minerva Pediat. 7:1456, 1955. 4. Guerra, F.: Fed. Proc. 12:326, 1953. 5. Busse, E. A.: Clin. Med. 2:1105, 1955. 6. Sticker, R. B.: Panel Discussion, Ohio State M. J. 52:1037, 1956.

SCHERING CORPORATION • BLOOMFIELD, N. J.

Schering

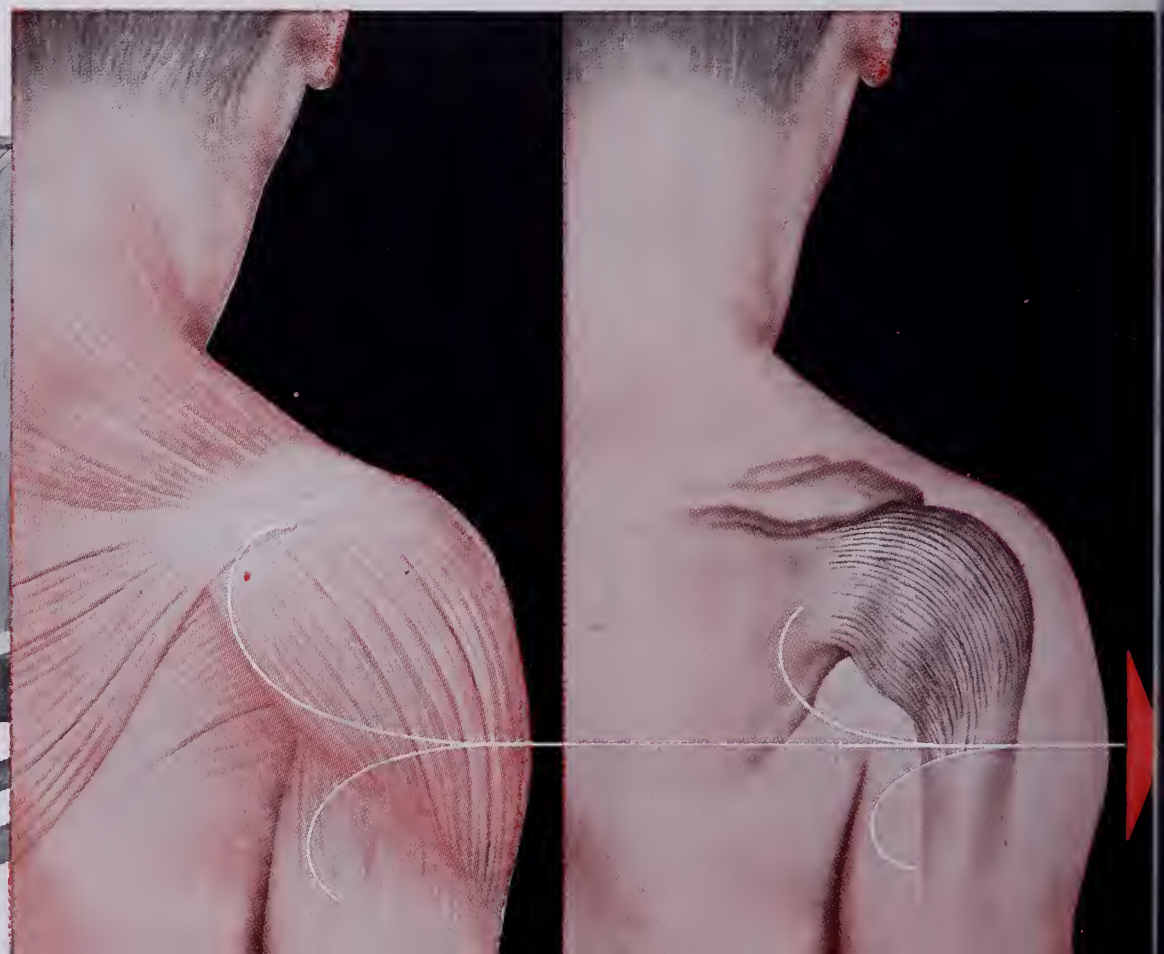
ıte conditions: Two or three
lets four times daily. After
ired response is obtained,
dually reduce daily dosage
l then discontinue.
›acute or chronic conditions:
ially as above. When satisfactory
ıtrol is obtained, gradually reduce
daily dosage to minimum
ective maintenance level. For best
ults administer after meals and
›edtime.
cautions: Because SIGMAGEN
ıtains prednisone, the
me precautions and
ıtraindications observed
h this steroid apply also
the use of SIGMAGEN.





"Rheumatoid arthritis is a constitutional disease with symptoms affecting chiefly joints and muscles."[1] "Pain in the affected joint is accompanied by splinting of the adjacent muscles, with resultant 'muscle spasm.' "[2]





rheumatoid arthritis involves both joints and muscles only

MEPROLONE is the only anti-rheumatic-antiarthritic designed to relieve simultaneously (a) muscle spasm (b) joint-muscle inflammation (c) physical distress . . . and may thereby help prevent deformity and disability in more arthritic patients to a greater degree than ever before.

SUPPLIED: Multiple Compressed Tablets in two formulas:
MEPROLONE-2—2.0 mg. prednisolone, 200 mg. meprobamate and 200 mg. dried aluminum hydroxide gel (bottles of 100).
MEPROLONE-1—supplies 1.0 mg. prednisolone in the same formula as MEPROLONE-2 (bottles of 100).

1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

MEPROLONE®

THE FIRST MEPROBAMATE PREDNISOLONE THERAPY

meprobamate to relieve muscle spasm
prednisolone to suppress inflammation

relieves both muscle spasm and joint inflammation

MERCK SHARP & DOHME Philadelphia 1, Pa.
Division of MERCK & CO., INC.

A NEW, CORTICOSTEROID MOLECULE WITH GREATER ANTIALLERGIC, ANTIRHEUMATIC AND ANTI-INFLAMMATORY ACTIVITY



for your patients with

- BRONCHIAL ASTHMA, ALLERGIC DISORDERS
- ARTHRITIC DISORDERS
- DERMATOSES

Squibb Triamcinolone

KENACORT

- far less gastrointestinal distress
- safe to use in asthma with associated cardiac disease; no sodium and water retention
- does not produce secondary hypertension—low salt diet not necessary
- no unnatural psychic stimulation
- often works when other glucocorticoids have failed
- and on a lower daily dosage range

SQUIBB

Initial dosage: 8 to 20 mg. daily. After 2 to 7 days gradually reduce to maintenance levels.
See package insert for specific dosages and precautions.
1 mg. tablets, bottles of 50 and 500.
4 mg. tablets, bottles of 30 and 100.

CENTENNIAL 1858 1958 SQUIBB

Squibb Quality—the Priceless Ingredient

"KENACORT" IS A SQUIBB TRADEMARK



Relaxes both mind and muscle

without impairing mental or physical efficiency

- well suited for prolonged therapy
- well tolerated, relatively nontoxic
- no blood dyscrasias, liver toxicity, Parkinson-like syndrome or nasal stuffiness

For anxiety, tension and muscle spasm in everyday practice.

Supplied:
400 mg. scored tablets,
200 mg. sugar-coated tablets.
Usual dosage:
One or two
400 mg. tablets t.i.d.

Miltown®

2-methyl-2-**n**-propyl-1,3-propanediol dicarbamate

TRANQUILIZER WITH MUSCLE-RELAXANT ACTION



THE ORIGINAL MEPROBAMATE
DISCOVERED & INTRODUCED BY
WALLACE LABORATORIES
NEW BRUNSWICK, NEW JERSEY

CM-6590

AN IMPORTANT ADVANCE IN MENOPAUSAL THERAPY

Because it replaces *half* control with *full* control.

Because it treats the *whole* menopausal syndrome.

Because *one* prescription manages *both* the psychic and somatic symptoms.

SUPPLIED: Bottles of 60 tablets.
Each tablet contains:

MILTOWN® (meprobamate, Wallace) ..... **400 mg.**
2-methyl-2-*n*-propyl-1,3-propanediol dicarbamate.

Conjugated Estrogens (equine) ..... **0.4 mg.**

DOSAGE: One tablet t.i.d. in 21-day courses with one week rest periods. Should be adjusted to individual requirements.

Samples and literature on request.

Two-dimensional treatment of the menopause

Milprem*

MILTOWN®
A Proven Tranquilizer
+
CONJUGATED ESTROGENS (EQUINE)
A Proven Estrogen

WALLACE LABORATORIES, *New Brunswick, N. J.*
who discovered and introduced Miltown, the original meprobamate.

*TRADE-MARK



The Iowa State Medical Society Approved Accident and Sickness Disability *'Income Replacement'* Insurance Program

THE ONLY GROUP DISABILITY INSURANCE PROGRAM ENDORSED AND SPONSORED BY THE IOWA STATE MEDICAL SOCIETY

THE BASIC AND EXTENDED COVERAGE PLANS PROVIDE

- Lifetime Accident Disability Benefits
- 7 Years non-confining Sickness Benefits
- Optional Hospital Benefits

THE PLANS PROVIDE:

1. World-wide coverage
2. Renewal provisions to age 70
3. Insures a Doctor for disability from his own profession
4. Full benefits paid regardless of other insurance
5. Substantial Dismemberment Benefits
6. Private flying covered—Basic Plan
7. No Reduction of weekly benefits to age 70

REDUCTION OF PREMIUM TO MEMBERS UNDER AGE 35

effective June 1, 1958, a *substantial reduction of premium* will be given to all members of the Society under age 35

EXCLUSIVE ADMINISTRATORS

Holmes, Prouty, Murphy and May

1022 High Street **Des Moines, Iowa**

WIN THIS PORTABLE

Zenith TV

AT THE

Iowa State Medical Society Annual Meeting

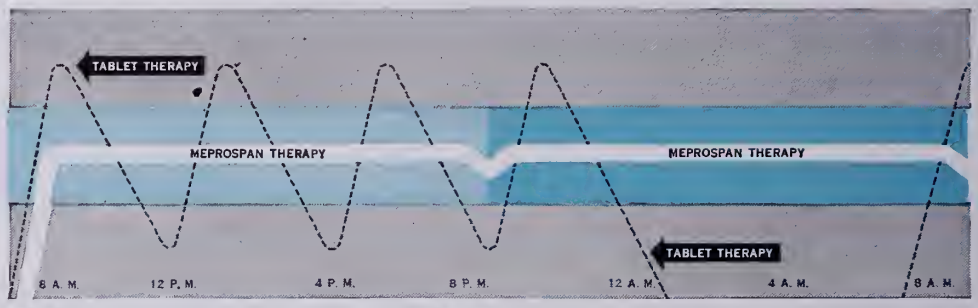
Register at the Group Insurance Booth Number 82



A portable Zenith TV will be given to the lucky winner during the Annual Meeting, Veterans' Auditorium, April 20-23. ALL MEMBERS ELIGIBLE.

New... meprobamate prolonged release capsules

Evenly sustain relaxation of mind and muscle 'round the clock



TWO MEPROSPAN CAPSULES IN THE MORNING RELIEVE ANXIETY, TENSION AND SKELETAL MUSCLE SPASM THROUGHOUT THE DAY.

TWO MEPROSPAN CAPSULES AT BEDTIME PROVIDE UNINTERRUPTED SLEEP THROUGHOUT THE NIGHT.

Meprospan*

MEPROBAMATE IN PROLONGED RELEASE CAPSULES

- maintains constant level of relaxation
- minimizes the possibility of side effects
- simplifies patient's dosage schedule

Dosage: Two Meprospan capsules q. 12 h.
Supplied: Bottles of 30 capsules.
Each capsule contains:
Meprobamate (Wallace) .....200 mg.
2-methyl-2-n-propyl-1,3-propanediol dicarbamate

Literature and samples on request.

*TRADE-MARK CME-6598-48

WALLACE LABORATORIES, *New Brunswick, N. J.*



IN ALL DIARRHEAS . . . REGARDLESS OF ETIOLOGY

comprehensive control with **CREMOMYCIN**®

SULFASUXIDINE* PECTIN-KAOLIN-NEOMYCIN SUSPENSION

SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

BROAD THERAPY . . . The combined antibacterial effectiveness of neomycin and Sulfasuxidine is concentrated in the bowel since the absorption of both agents is negligible.

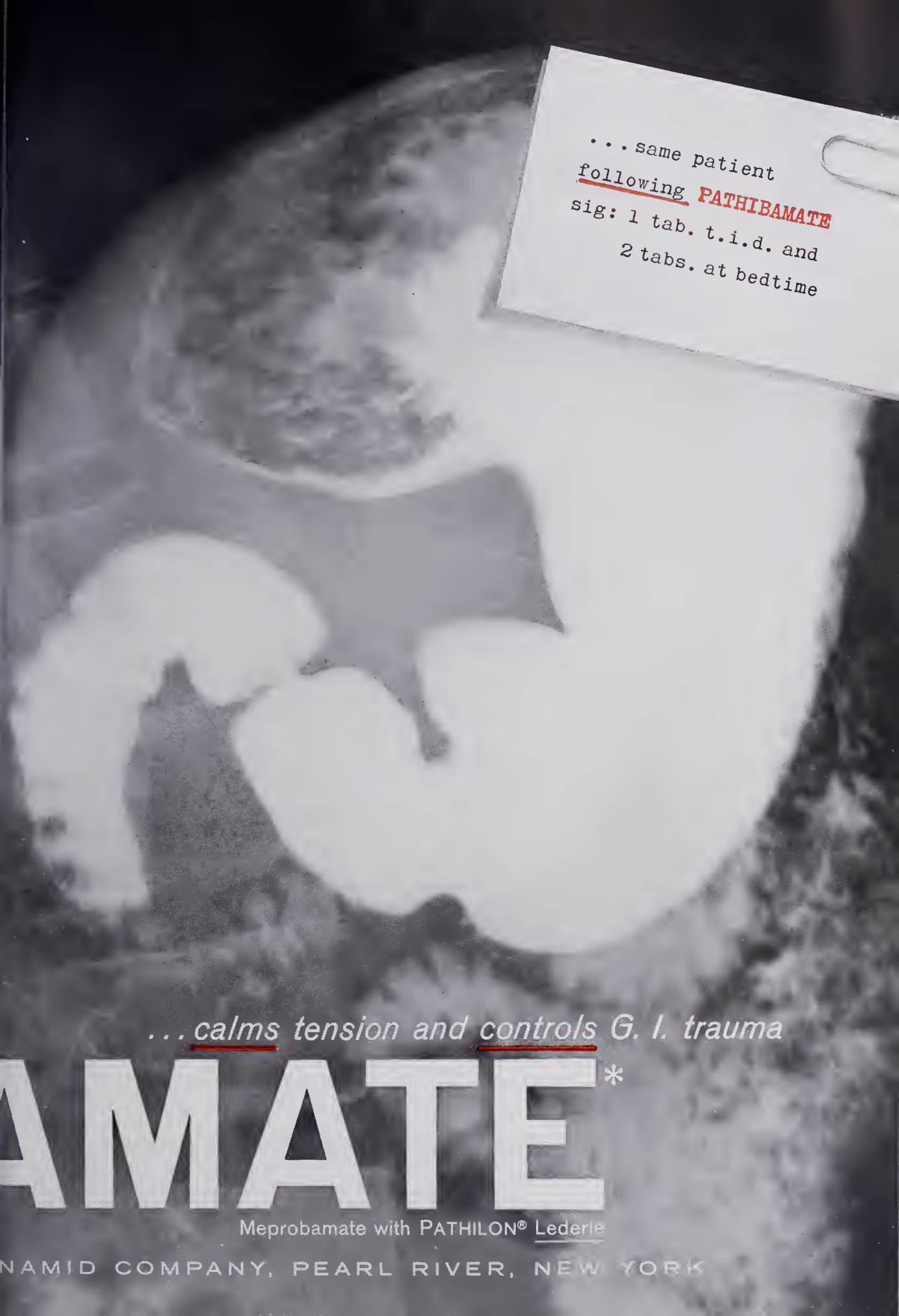
LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

PALATABLE creamy pink, fruit-flavored CREMOMYCIN is pleasant tasting, readily accepted by patients of all ages.

*Sulfasuxidine is a trade-mark of Merck & Co., Inc.

MSD MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.


Patient J. I.
Duodenal Ulcer
before PATHIBAMATE
PATHIE
Lederle
LEDERLE LABORATORIES DIVISION, AMERI
*Trademark
®Registered Trademark for Tridihexethyl Iodide Lederle


. . . same patient
following PATHIBAMATE
sig: 1 tab. t.i.d. and
2 tabs. at bedtime
. . . calms tension and controls G. I. trauma
AMATE*
Meprobamate with PATHILON® Lederle
NAMID COMPANY, PEARL RIVER, NEW YORK

NOW...A NEW TREATMENT

'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

for simultaneously combating inflammation, allergy, infection

METIMYD ophthalmic suspension

(0.5% prednisolone acetate and 10% sulfacetamide sodium—5 cc. dropper bottle)

METIMYD ointment with neomycin

(0.5% prednisolone acetate, 10% sulfacetamide sodium and 0.25% neomycin sulfate—⅛ oz. tube)

in external eye disorders look to these topical healing aids



for ocular allergies

METRETON® ophthalmic suspension

(0.2% prednisolone acetate and 0.3% CHLOR-TRIMETON®—5 cc. dropper bottle)

standard for ocular infections

Sodium SULAMYD ophthalmic solution 10%

(Sulfacetamide Sodium U.S.P.—5 and 15 cc. dropper bottles)

Sodium SULAMYD ophthalmic solution 10% with hydroxyethylcellulose

(15 cc. dropper bottle)

Sodium SULAMYD ophthalmic ointment

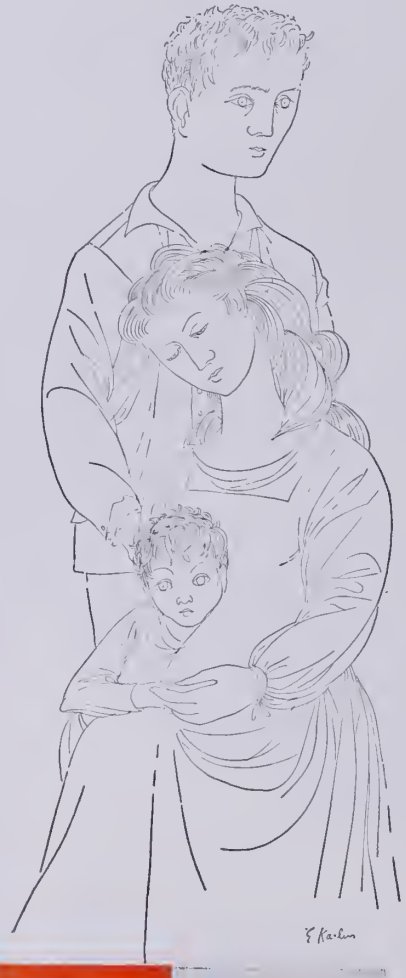
(⅛ oz. tube)

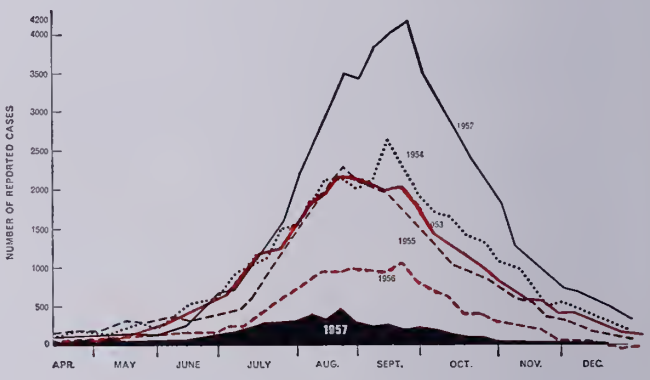
SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY Schering

M-J-128

A MIRACLE IN OUR TIME?

At the last accounting,[1] physicians throughout the country had administered at least one dose of poliomyelitis vaccine to 64 million Americans—all three doses to an estimated 34 million. Undoubtedly, these inoculations have played a major part in the dramatic reduction of paralytic poliomyelitis in this country.





Incidence of polio in the United States, 1952-1957
(data compiled from U.S.P.H.S. reports)

vaccine is plentiful for the job remaining

There are still more than 45 million Americans under forty who have received no vaccine at all and many more who have taken only one or two doses.

As it was phrased in a public statement by the Department of Health, Education, and Welfare:

> *"It will be a tragedy if, simply because of public apathy, vaccine which might prevent paralysis or even death lies on the shelf unused."*[2]

Eli Lilly and Company is prepared to assist you and your local medical society to reach those individuals who still lack full protection. *For information see your Lilly representative.*

1. *J. A. M. A.*, 165:21 (*November 23*), *1957.*
2. *Department of Health, Education, and Welfare: News Release, October 10, 1957.*

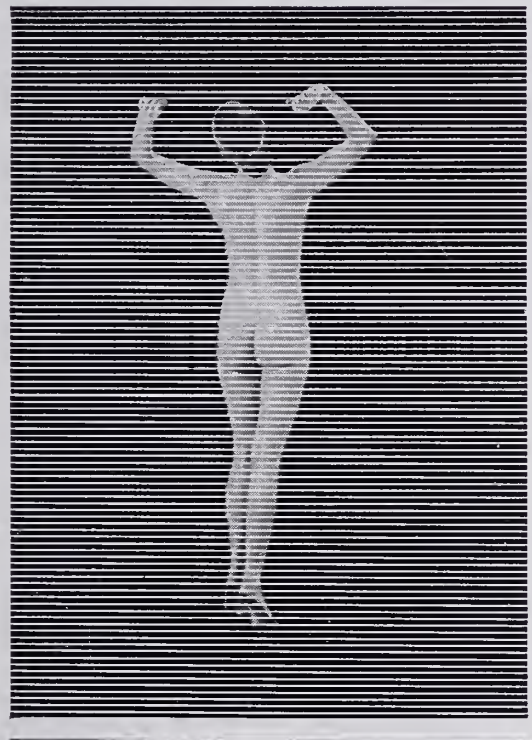
Lilly
QUALITY RESEARCH INTEGRITY

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849008

CHEMOTHERAPY PLUS FLORA CONTROL

Floraquin®

Destroys Vaginal Parasites
Protects Vaginal Mucosa







Vaginal discharge is one of the most common and most troublesome complaints met in practice. Trichomoniasis and monilial vaginitis, by far the most common causes of leukorrhea, are often the most difficult to control. Unless the normal acid secretions are restored and the protective Döderlein bacilli return, the infection usually persists.

Through the direct chemotherapeutic action of its Diodoquin® (diiodohydroxyquin, U.S.P.) content, Floraquin effectively eliminates both trichomonal and monilial infections. Floraquin also contains boric acid and dextrose to restore the physiologic acid pH and provide nutriment which favors regrowth of the normal flora.

Method of Use

The following therapeutic procedure is suggested: One or two tablets are inserted by the patient each night and each morning; treatment is continued for four to eight weeks.

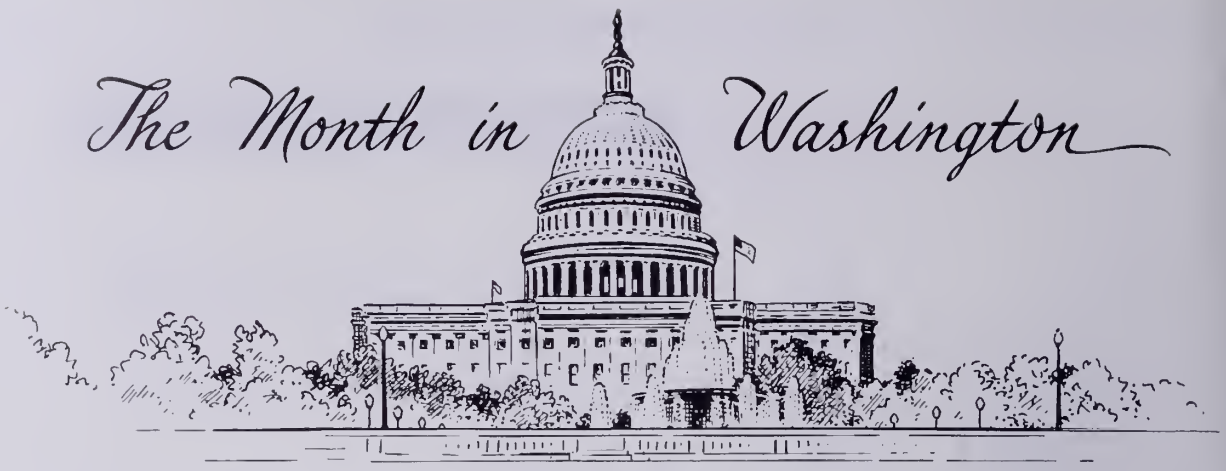
Intravaginal Applicator for Improved Treatment of Vaginitis

This smooth, unbreakable, plastic device is designed for simplified vaginal insertion of Floraquin tablets by the patient. It places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate.

A Floraquin applicator is supplied with each box of 50 tablets. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

The Month in Washington



Washington, D. C.—At least for this year, it appears that Congress will keep its hands off tranquilizer drug regulation. The issue was studied by a House Government Operations Subcommittee in three days of hearings, where experts on tranquilizers testified. With few exceptions, they told the Subcommittee they thought the situation was well in hand now and that no new legislation was needed.

The investigation grew out of reports that (a) some tranquilizer manufacturers are misleading doctors in literature describing the drugs and in advertisements in medical journals, and (b) somehow the general public is reading these claims and prevailing on doctors to prescribe the drugs when they aren't indicated medically.

A report, when issued by the full committee later in the year, is expected to point out some of the danger areas explored at the hearings, but not to make a strong demand for further federal regulation in this area.

Dr. Leo Bartemeier, chairman of the AMA's Council on Medical Health, told the Subcommittee under Rep. John Blatnik (D., Minn.) that he knows of no "gross misrepresentation" of the drugs, and that it is his understanding that the producers subject the drugs to careful tests before releasing them to the medical profession. Dr. Bartemeier explained that the drugs are helpful in bringing mental patients in contact with reality, thus preparing them for treatment.

Dr. Robert H. Felix, head of the National Institute of Mental Health, agreed that the tranquilizers are "a new source of hope" for patients and psychiatrists alike, but he pointed out that their success actually highlighted the acute shortage of trained psychiatric personnel in public mental hospitals. He said that too many patients, after being made ready for treatment through use of the drugs, have to wait for long periods until overworked psychiatrists can start their treatments.

Two other government witnesses also said no new legislation is needed. They were Dr. Albert H. Holland, Jr., medical director of the Food and Drug Administration, and Commissioner Sigurd Anderson of the Federal Trade Commission. They argued that even the most questionable wording does not mislead the wary physician, and that there is no record in 20 years of any drug advertisements sent exclusively to the profession that carried false or misleading claims.

Dr. Nathan Kline, research director for the New York State Department of Mental Hygiene, said there may be occasional abuses or "honest mistakes," but that they are not frequent enough to justify new legislation.

Dr. Kline did suggest that it might be wise to give the Food and Drug Administration full authority over policing of advertising. At present the FDA is responsible for checking on claims on labels or inclosed literature, and the Federal Trade Commission is responsible for checking advertisements. The advantage would lie in the FDA's authority to move faster against producers in case of abuse.

Among the few who called for new control legislation was Dr. J. Murray Steele, who headed a New York Academy of Medicine study of tranquilizer advertising.

In contrast to evidence from witnesses before the Blatnik Subcommittee, Dr. Steele said a number of psychiatrists had told his panel that the ads often serve more to mislead than to guide physicians.

NOTES

A four-day Washington conference of representatives of organizations concerned with nursing homes and homes for the aged agreed on the need for federal legislation to help renovate and build facilities. Left open was the question of whether the aid should be through grants or mortgage guarantees. Surgeon General Burney told the group that the lack of good nursing homes was keeping "tens of thousands of older patients in general hospitals for prolonged periods beyond the time when they need or even can benefit from 'full-dress' hospital services."

* * *

Dr. David B. Allman, AMA president, has warned the country of food faddists and diet quacks. Speaking at the National Food Conference,

At Your Service



To bring you . . .

★ **Ease of practice**
★ **Increased net profit**
★ **A maximum safe estate**

Twenty-one men specializing in medical economics are available to assist Midwestern Doctors with any and all business and practice management problems.

Approximately 800 Doctors are now benefiting from their training and experience. We invite you to call or write us or visit Booth 79 at the Iowa State Medical Convention on April 21-23 to learn more of our service and its application to you.

PROFESSIONAL MANAGEMENT MIDWEST

404 Insurance Building
Waterloo, Iowa
Phone: ADams 3-3842

Offices in twelve Midwestern cities

he said too many people put off seeing a physician while accepting certain health foods, herb mixtures or "some other phony remedy." The AMA and the Food and Drug Administration are working on a program on the dangers of food quackery. This includes a television film.

* * *

Senator Lister Hill (D., Ala.), chairman of the Senate Appropriations Subcommittee that handles the HEW budget, is convinced work should be pushed on the new National Library of Medicine building. Only planning funds have been voted to date. Hill wants the administration to indorse $7 million for the library in the face of deterioration of the present structure. He cites an editorial in J.A.M.A. on the need for action.

* * *

Dr. F. J. L. Blasingame, AMA general manager, has informed the House and Senate Armed Services Committees of AMA support for continuing the 1956 incentive pay act for medical officers. The House group is considering legislation to change the base pay of all military personnel; this would have the effect of cutting down the special pay for experienced medical officers.

* * *

The House Government Operations Committee also has been busy in another field. Reporting on its long hearings of last year on advertising of filter-tip cigarettes, the group declared: "The cigarette industry has done a grave disservice to the smoking public initially blatantly, and more recently, very subtly publicizing the filter-tip smoke as a health protection."

DOCTORS DONATE SERVICES

The New Mexico Welfare Department has accepted the offer of the doctors in that state to render free medical care to welfare patients rather than accept a further reduction in payments from public funds. The experiment began on February 1 and will be reviewed and either renewed or abandoned on June 30.

The 509 physicians who compose the New Mexico State Medical Society had been receiving roughly one-fourth of their regular fees for care provided to welfare recipients. Because there had been a gradual increase in the number of individuals certified for relief, the Welfare Department said its funds were nearing exhaustion and asked for a further scaling-down of fees. Before midyear, the doctors hope that the Department will institute and enforce better screening of applicants in its 31 county offices.



* J.A.M.A. *166*:158,1958; Welsh,A.L. and Ede,M. "...*prompt remissions of...acute phases.*" with TARCORTIN

R&C REED & CARNRICK / Jersey City 6, New Jersey

* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

respiratory infections
gastrointestinal infections
genitourinary infections
miscellaneous infections

immediate therapeutic response

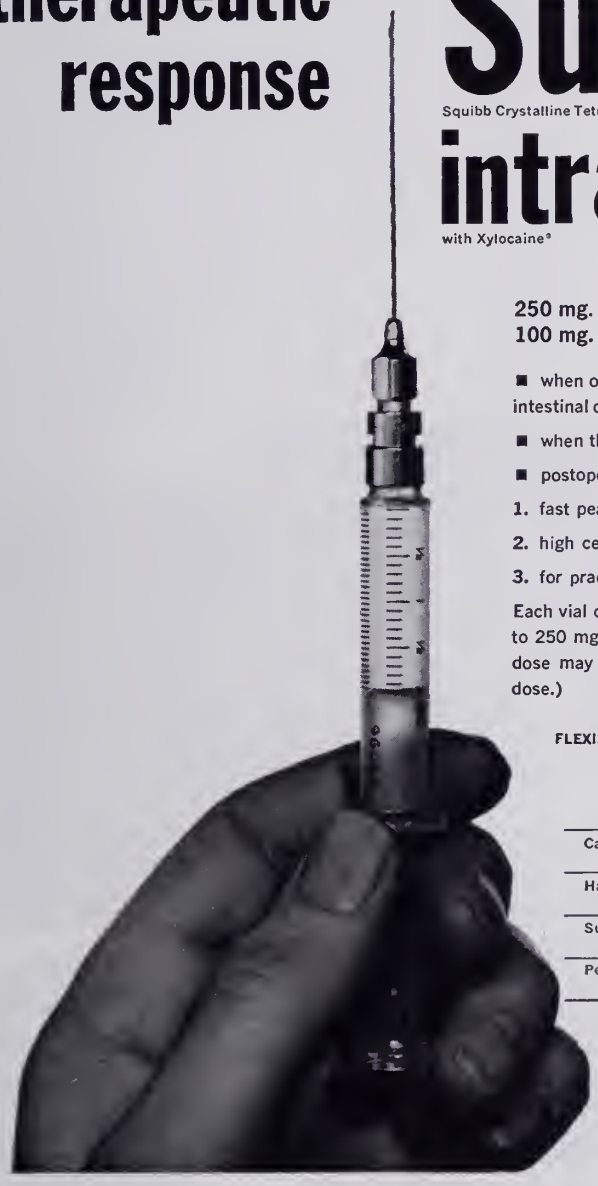
use

Sumycin

Squibb Crystalline Tetracycline Phosphate Complex

intramuscular

with Xylocaine®



250 mg. per 1 dose vial
100 mg. per 1 dose vial

- when oral therapy is contraindicated (vomiting, dysphagia, intestinal obstruction, gastrointestinal disorders)
- when the patient is comatose or in shock
- postoperatively

1. fast peak blood and tissue concentrations
2. high cerebrospinal levels
3. for practical purposes, Sumycin is sodium-free

Each vial contains tetracycline phosphate complex equivalent to 250 mg., or 100 mg., of tetracycline HCl. (Note: 250 mg. dose may produce more local discomfort than the 100 mg. dose.)

FLEXIBLE DOSAGE FORMS FOR CONTINUING ORAL THERAPY

	Tetracycline phosphate complex equiv. tetracycline HCl (mg.)	Packaging
Capsules (per capsule)	250	Bottles of 16 and 100
Half Strength Capsules (per capsule)	125	Bottles of 16 and 100
Suspension (per 5 cc. teaspoonful)	125	60 cc. bottles
Pediatric Drops (per cc.—20 drops)	100	10 cc. bottles with dropper

SQUIBB

Squibb Quality—the Priceless Ingredient

*SUMYCIN® IS A SQUIBB TRADEMARK ®T.M.® ASTRA PHARMACEUTICAL PRODUCTS, INC.

INTERNATIONAL CONGRESS OF INTERNAL MEDICINE

The world's largest international gathering of scientists and clinicians concerned with internal medicine will take place in Philadelphia on April 24-26 at the Fifth International Congress of Internal Medicine.

Among the 81 foreign speakers will be leading physicians from the Soviet Union, Czechoslovakia, Hungary, Rumania and Poland. The Russian speakers' topics will include myocardial infarction, anticoagulant therapy, coronary insufficiency, and clinical and experimental cardiac aneurysm.

The subjects for panel discussions and symposia will include cardiac diseases, vascular diseases, hematology, the medical aspects of cancer, synthetic steroid compounds used in treating rheumatoid arthritis, poliomyelitis, gastroenterology, endocrinology and diabetes, cardiovascular surgery, tuberculosis and rehabilitation. In addition, there will be lectures by Americans such as Dr. Paul Dudley White, Dr. Robert L. Levy and Dr. Shields Warren, as well as by authorities from throughout the rest of the world.

Entertainment and cultural activities for both the attending doctors and their wives are being arranged, and it is expected that most of them will go on to Atlantic City for the Annual Session of the American College of Physicians, which is to be held from April 28 to May 2. An official post-Congress tour to medical centers and points of historic and cultural interest in Washington, Baltimore, Detroit, Ann Arbor, Niagara Falls, Boston and New York from May 7 to 15 has also been arranged.

Information and registration forms for the Congress can be obtained from Mr. E. R. Loveland, secretary-general, 4200 Pine Street, Philadelphia 4.

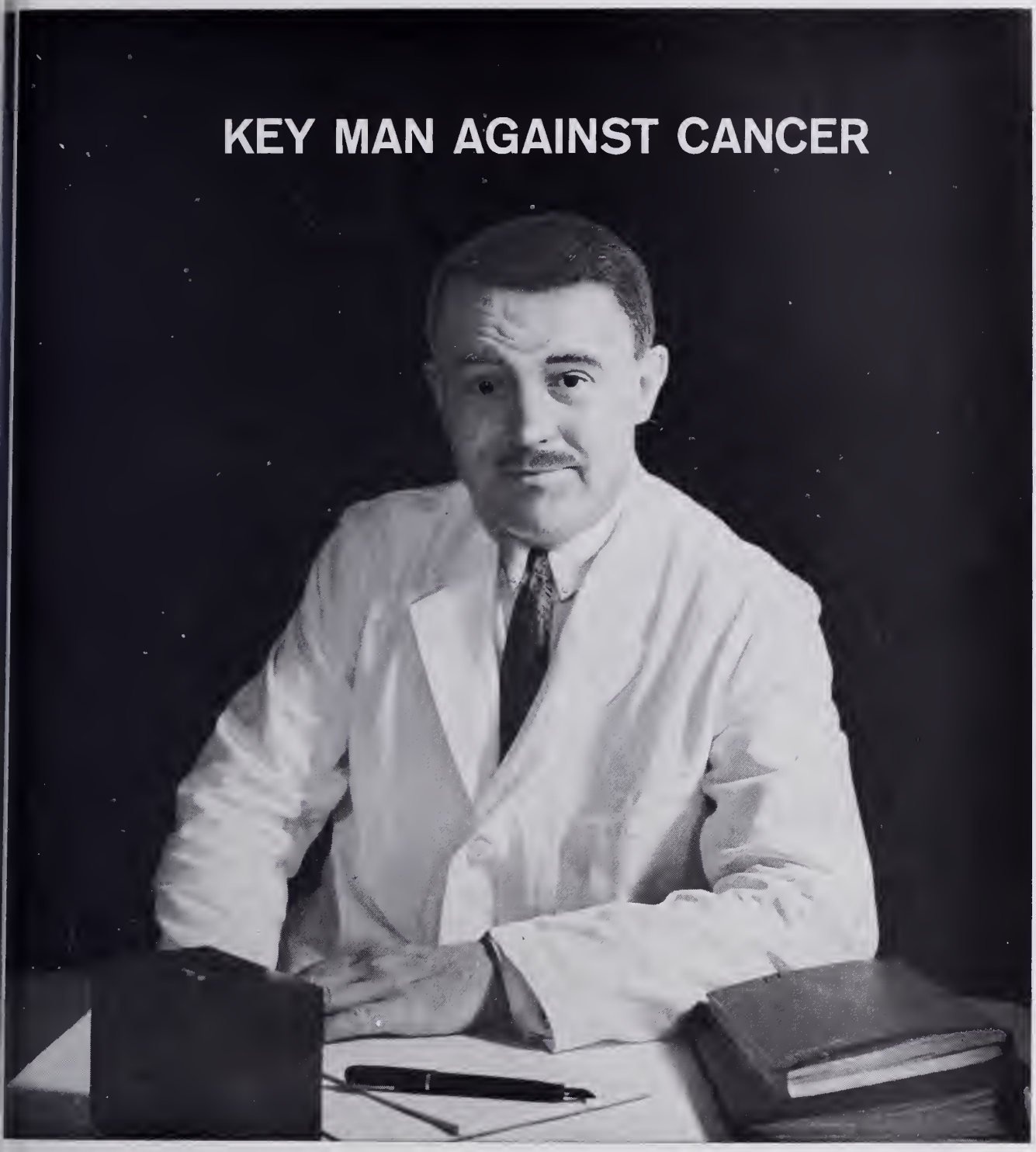
COST OF ASIAN FLU

Last fall's flu epidemic proved expensive for the Des Moines Public Schools. For service during the pre-flu month of September, 1957, $5,796 was paid to substitute teachers. For October, the amount was $17,314.50, for November it was $21,934.50, and for December it was $9,004.50.

Plan to Attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines, April 20-23



KEY MAN AGAINST CANCER

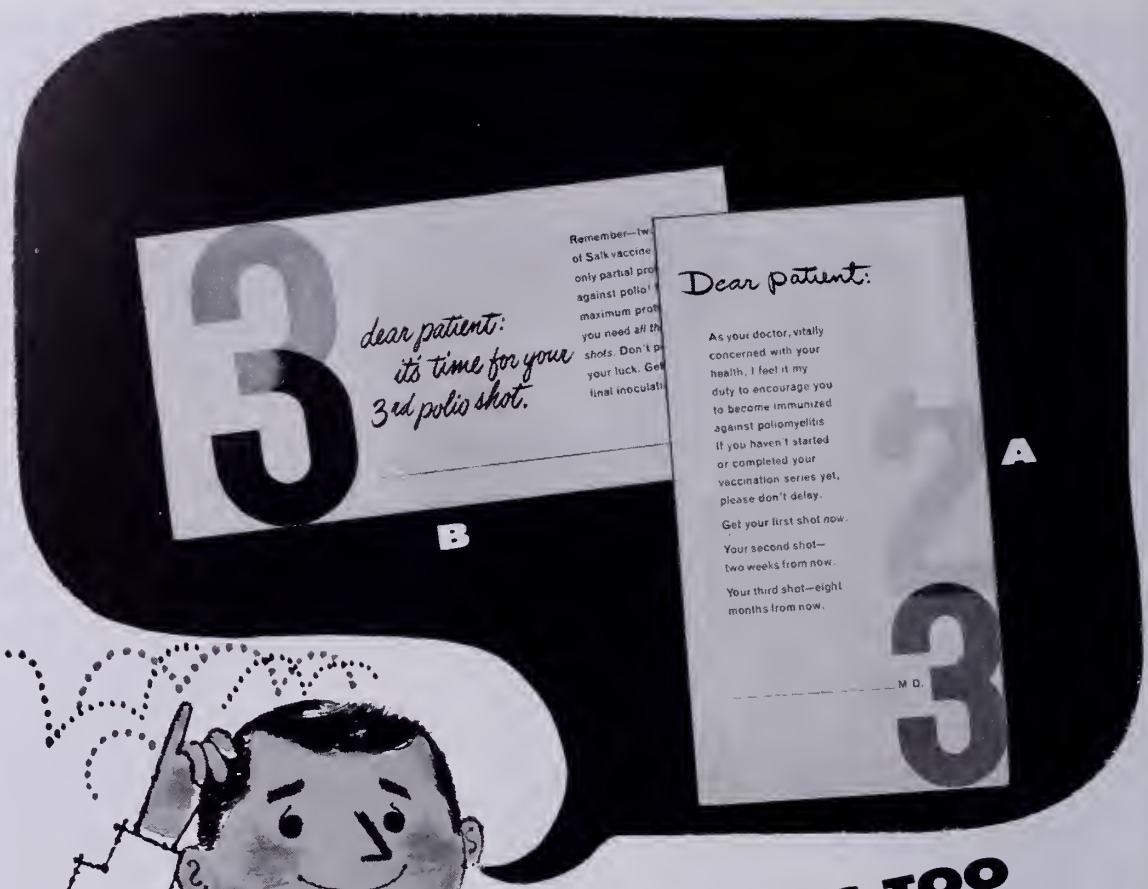


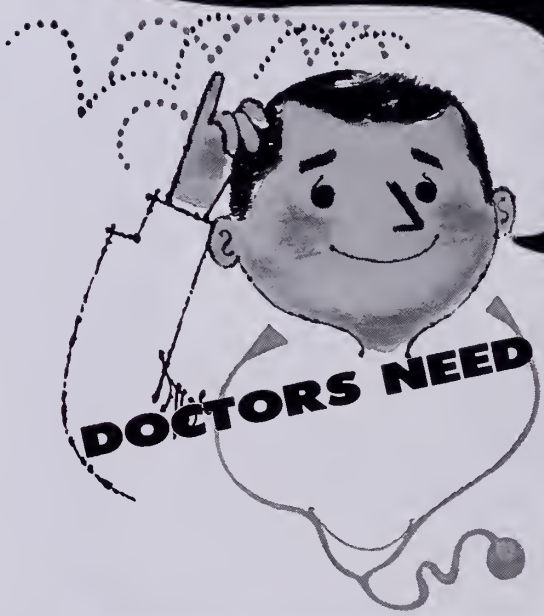
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You, of course, are concerned with all the ills affecting the human body. The American Cancer Society deals specifically with cancer. But our mutual concern — he tie that binds us inextricably—is the saving of human lives. Through your efforts, ve may soon say—"one out of every two cancer patients is being saved." Indeed, with your help, cancer will one day no longer be a major threat

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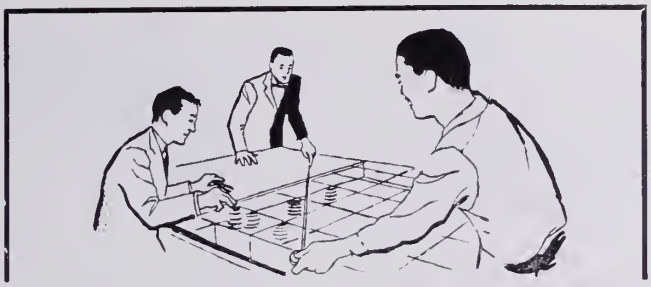
_____ copies of the **A** Salk series reminder cards.
indicate quantity

_____ copies of the **B** Third shot reminder cards.
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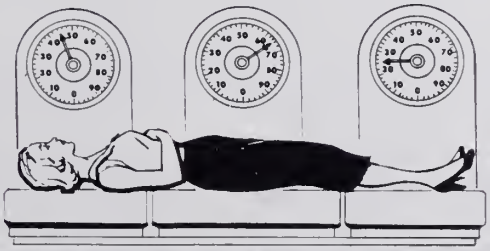
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Personals



The 125 physicians of Sioux City are being canvassed in an attempt to engage a successor to **Dr. Charles P. McHugh** as city physician. According to an agreement between the city government and the Woodbury County Medical Society, Dr. McHugh's successor will be head of the municipal health services but will be expected to devote a smaller portion of his time to the job. In consequence, the city hopes to pay somewhat less than the $390 per month which Dr. McHugh received.

At a discussion of cancer in Waterloo on February 26, sponsored by the Iowa Division of the American Cancer Society, **Dr. Richard L. Miller** was moderator, and **Drs. Edward L. Rohlf, Richard V. Corton** and **Arthur W. Woodward** were participants. At a forum on digestive disorders sponsored jointly by the WATERLOO COURIER and the Black Hawk County Medical Society and held on March 5, **Dr. Thomas Trunnell** was moderator, and the participants were **Dr. Arthur Perley, Dr. John Malek, Dr. C. P. Addison** and **Dr. Jean LePoidevin.**

Dr. John Barnes, who recently opened a medical practice in Woodbine, has been elected president of the Harrison County Medical Society. **Dr. Floyd G. Sarff,** of Logan, was made vice-president, and **Dr. R. G. Wilson,** of Missouri Valley, was reelected secretary-treasurer. **Dr. A. C. Bergstrom** will be the delegate and **Dr. F. X. Tamisiea** will be alternate. Both practice in Missouri Valley.

Commenting on the Iowa Heart Association's announcement that heart and blood-vessel diseases were five per cent more numerous in Iowa during the first 11 months of 1957 than in the corresponding period of 1956, **Dr. Edmund G. Zimmerer,** state commissioner of health, said, "Many more Americans are surviving or avoiding the diseases of 50 years ago, and living into the advanced age brackets in which heart diseases take their greatest toll."

There were 14,356 cardiovascular deaths in the 11-month period, a rise of 682 over the 13,674 in the same months of 1956. The older age brackets were hit increasingly hard, for there was a rise of 713 deaths in the 50-years-and-older and unknown groups, and a decline of 31 deaths in the under-50 groups. Of the 26,527 deaths in Iowa during 1956, cardiovascular disease had caused 15,178 (57.2 per cent). That figure was 3.3 per cent in excess of the national average.

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Two S.U.I. doctors have been given grants by the Tobacco Industry Research Committee. They are **Dr. John W. Eckstein,** assistant professor of internal medicine, and **Dr. Emory D. Warner,** professor of pathology. Their projects, respectively, are a study of responses of peripheral veins to the intravenous administration of nicotine, and a study of cellular changes in human bronchi resulting from smoking.

At the refresher course for GP's in Iowa City during February, held under the joint sponsorship of the S.U.I. College of Medicine and the IAGP, **Frederick L. Darley,** an associate professor of speech pathology, said, "Of every 50 children with speech disorders, only four or five have physical conditions that cause the impairment." He asked doctors to check for a physical cause of such difficulties, and to counsel parents against attempting to remedy them through methods that do more harm than good.

On February 24, the National Fund for Medical Education awarded $43,080 to the S.U.I. College of Medicine. Each four-year medical school in the country received a basic $15,000, plus $65 for each undergraduate student, and the total of all grants this year was $984,885. There are no restrictions on the use of the money, and most schools use it for increasing their professors' salaries, adding new staff members and expanding curricula.

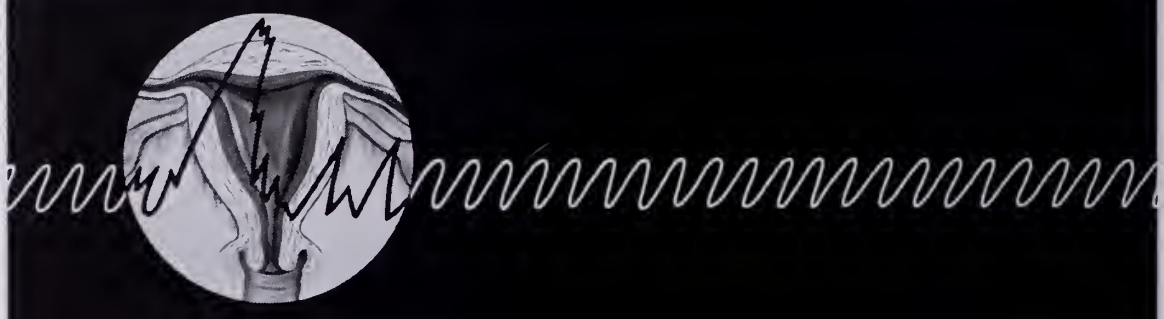
Three S.U.I. physicians took part in the sectional meeting of the American College of Surgeons in New York City, March 3-6. They are **Dr. A. E. Braley** and **Dr. H. M. Burian,** both professors of ophthalmology, and **Dr. William C. Huffman,** professor of otolaryngology and maxillofacial surgery.

At a panel discussion of cancer set up in Davenport on February 13 by the Iowa Division of the American Cancer Society, **Dr. Robert W. McConnell,** of Davenport, was moderator, and the participants were **Drs. Robert J. Foley, Charles Preacher** and **Erling Larson,** of Davenport, and **Dr. J. E. Christiansen,** of Durant.

Dr. and Mrs. Herbert A. Sohm, of Des Moines, took a two-week vacation in Arizona during February.

On behalf of the medical clinic of which he is a staff member, **Dr. M. R. Paragas** presented a whirlpool bath to Creston High School in mid-February.

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Available on prescription only.

TABLETS *(sugar coated) Each Tablet contains:*

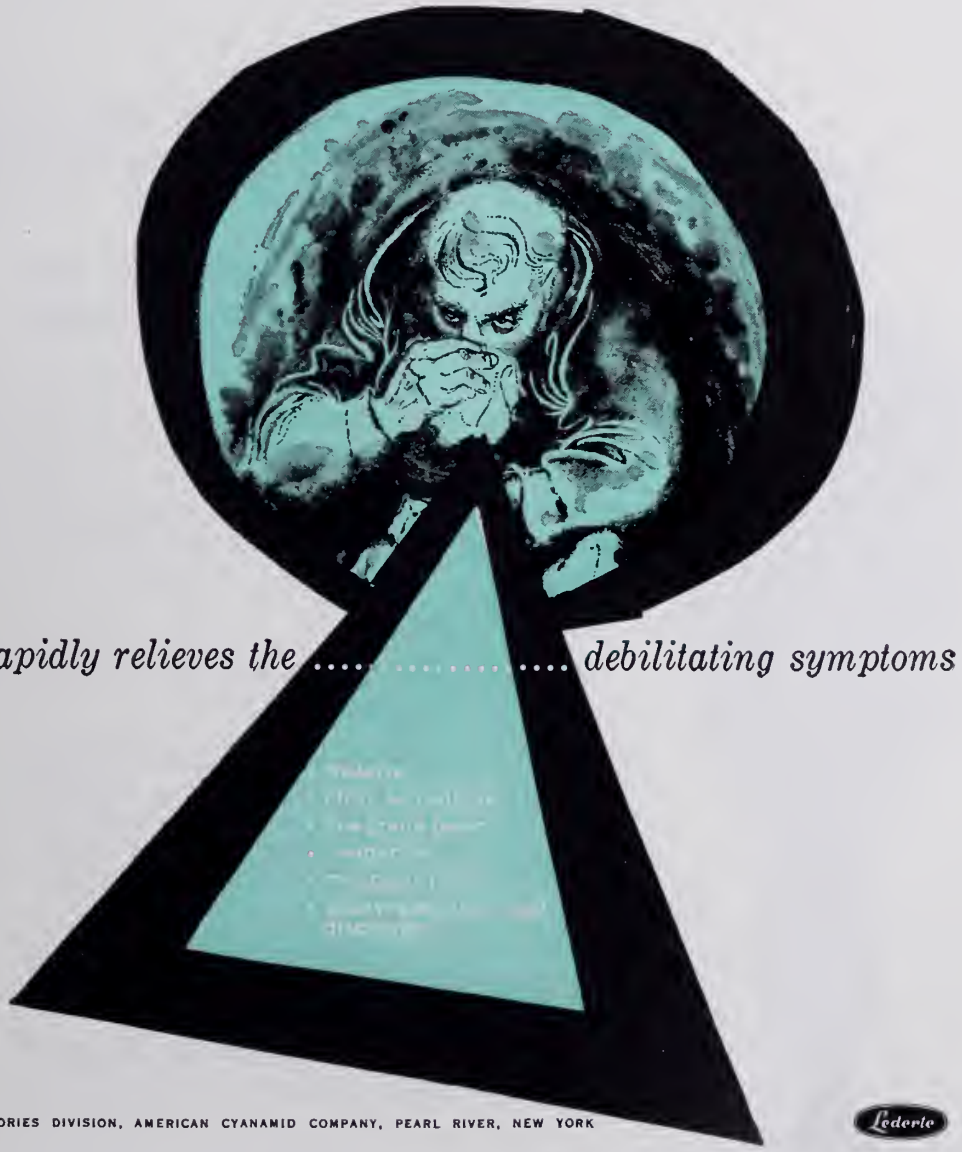
ACHROMYCIN® Tetracycline	125 mg.
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Bottles of 24 and 100.

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Any indication for diuresis is an indication for 'DIURIL':

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The dosage of other antihypertensive medication (reserpine, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be *immediately* reduced by 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

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The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.



BENEFITS:

- improves and simplifies the management of hypertension
- markedly enhances the effects of antihypertensive agents
- reduces dosage requirements for other antihypertensive agents—often below the level of distressing side effects
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Smooth, more trouble-free management of hypertension with 'DIURIL'

Dr. Richard V. Daut, of Davenport, suffered an eye injury on February 14, when a snowball thrown through his open car window by a 14-year-old boy knocked off his glasses. The doctor slammed on his brakes when he no longer was able to see, and thus precipitated an automobile accident behind him. The car immediately to the rear stopped short of hitting Dr. Daut's, but the driver was thrown forward and injured his knees against the dashboard. The third car in the line crashed into the second, but the driver and passengers in it escaped injury. Subsequently, one of Dr. Daut's eyes was swollen shut for a time.

At Marshalltown, **Dr. W. R. Wessels** has associated himself in practice with **Drs. J. E. Sinning** and **J. S. Crandall.** Heretofore, though his offices adjoin those of the other two men, he has practiced separately.

Dr. Fred Sternagel, president of the Iowa State Medical Society, addressed the seventy-ninth annual meeting of the Iowa Pharmaceutical Association, at the Savery Hotel in Des Moines on February 18.

Dr. Paul T. Meyers, a Bloomfield radiologist, addressed the northwest Iowa veterinarians at Emmetsburg on March 8 on swine erysipelas. He worked for eight years on that disease in North Carolina and other states, and in January of this year exhibited diagnostic x-rays of the ailment at the meeting of the Radiological Society of North America, in Chicago. A pig, Dr. Meyers says, exhibits a classical joint effect of the disease in knee x-rays, and diagnosis by that means is quicker than by culture.

At 9:30 a.m. on February 24, **Dr. Frank J. Bries**, of North Buena Vista, received chest injuries and a head cut in a head-on collision on Highway No. 52 east of Durango. The man with whose car he collided was subsequently charged with improper passing and failure to yield half of the road.

Dr. Robert A. Towle is one of three candidates for two positions on the school board at Bettendorf. He has lived in the town for two years.

Mr. Russell I. Brown, acting commissioner of public safety in the state government, said on February 27 that his department is considering the formation of an advisory medical board to assist in drivers' license examinations. The board would be made up of specialists in all fields of medicine, and various state groups would be asked to name members. Under the plan, he said, appli-

TAKE A LOOK AT
NEW DIMETANE
THE UNEXCELLED
ANTIHISTAMINE

cants with medical defects would be examined by the board, and drivers' licenses would be issued or denied according to its recommendation.

The new officers of the Worth County Medical Society are **Dr. R. L. Olson,** Northwood, president; and **Dr. William G. McAllister,** Manly, secretary-treasurer.

At the February 27 meeting of the Pocahontas County Medical Society, in the home of **Dr. Clyde J. Smith** at Gilmore City, **Dr. Don G. Bock,** of Fort Dodge, spoke on "Anemias."

A ground floor location that formerly housed a cafe is being remodelled into a suite of offices for **Dr. Byron Peterson,** in Mount Pleasant. It will be ready for occupancy early this month.

Dr. Thomas Graham, an obstetrician who took his M.D. degree at Creighton University and served his residency at St. Elizabeth's Hospital, Lafayette, Indiana, has joined **Dr. Arthur Burgess** in practice at Iowa Falls.

Reverend Granger E. Westberg, a professor of religion and health at the University of Chicago, was guest speaker at a seminar for physicians and ministers at Jennie Edmundson Hospital, Council Bluffs, on February 27. The meeting was the second of its kind that has been held at the Hospital during the past year.

At the March 4 meeting of the Scott County Medical Society, held at the Outing Club in Davenport, **Dr. Robert C. Hardin,** professor of internal medicine at S.U.I., spoke on the medical aspects of civilian defense. Dr. Hardin is chairman of the ISMS Committee on National Emergency Medical Service.

Dr. Arthur Steindler, of Iowa City, professor emeritus of orthopedic surgery at S.U.I., was re-elected vice-president of the United States section of the International College of Surgeons at Los Angeles on March 9.

Dr. G. W. Bennett, of Oskaloosa, let contracts on March 11 for the construction of a private clinic building. It will house diagnostic, x-ray, laboratory and physical therapy services, and will be ready for occupancy in the fall. There will be an off-the-street parking lot.

About 30 doctors from throughout the state at-

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tended the spring meeting of the Iowa Orthopedic Society in Burlington on March 8. The meeting is customarily held in the home town of the president, and that officer this year is **Dr. F. G. Ober.**

Next July, **Dr. J. J. Tilton** plans to move from Bellevue to Mesa, Arizona. The town, which has a population of 35,000, is 17 miles from Phoenix, and Dr. Tilton plans to join two other doctors there in a clinic that is now being built. He has practiced in Bellevue since 1945.

Dr. Eric Swanson, of Fort Dodge, was the guest speaker at the February 27 meeting of the Wright County Medical Society, in Eagle Grove.

Dr. H. J. Fishman spoke on health careers at the Career Day of Washington High School, Cherokee, on March 4. He is president of the board of education there.

Dr. Milton L. McCall, professor and head of the Department of Obstetrics at Louisiana State University Medical School, addressed the March 13 meeting of the Linn County Medical Society on "The Early Diagnosis of Cancer of the Uterus; A Challenge to the Medical Profession." The meeting was held at the Cedar Rapids Country Club.

Dr. Thaddeus P. Krush, associate professor of neurology and psychiatry at the University of Nebraska College of Medicine, spoke on Friday afternoon, March 14, at the Knoxville V-A Hospital. His topic was "Everyday Psychiatric Casualties."

Dr. James L. Coffey, of Emmetsburg, was hospitalized there early in March.

Dr. J. H. Sunderbruch, city health officer in Davenport, has ordered an intensive check on all food handlers' records of T-B examinations, and asked that chest x-ray programs be instituted at private nursing homes. He said that since the first of the year more than ten advanced cases of T-B have been called to his attention, and two of them have resulted in death. He went on to say that he was alarmed to learn of a situation in which a known active T-B carrier was permitted to work for more than a year in an establishment handling food for public consumption.

Dr. C. W. Clark, of Nashua, recently purchased a four-passenger, 1954 model Tri-Pacer, a plane which he considers far superior to the one he previously had.

(continued on page xlvii)

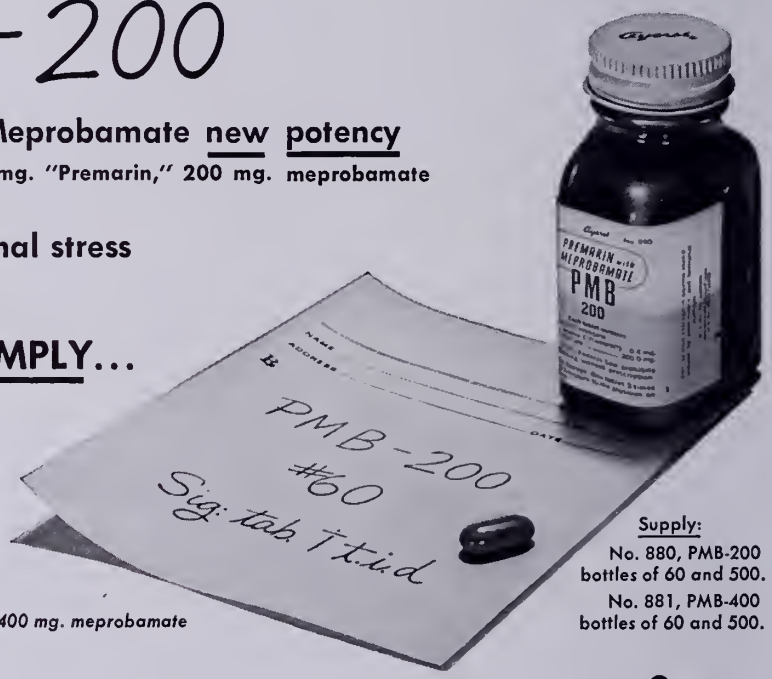
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Is she blue at breakfast? Prescribe BONADOXIN. Usually just one tablet at bedtime stops nausea and vomiting of pregnancy...

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...and for a nutritional buildup plus freedom from leg cramps*

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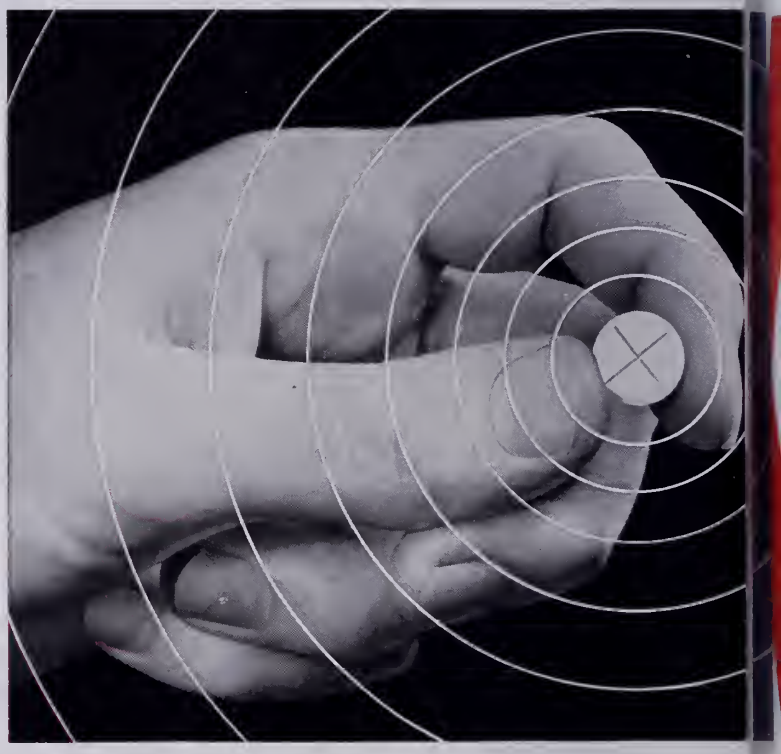
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- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

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The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

Tablets:
Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup:
Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

[1] Nichols, R. L. and Finland, M.: J. Clin. Med. 49:410, 1957.

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Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+) it lowers gastric secretion while it tranquilizes.



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Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

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At the March 19 meeting of the Polk County Medical Society, the Cancer Society's film "Time and Two Women" was shown, and **Dr. J. Garrot Allen,** professor of surgery at the University of Chicago College of Medicine, spoke on "Blood Plasma in Clinical Practice."

Dr. Harry B. Weinberg, an internist, moved his office on March 1 to the Medical Arts Building, in Davenport.

At the April 15 meeting of the Black Hawk County Medical Society, to be held at 6:30 p.m., in the Elks Club in Waterloo, **Drs. William Myerly** and **John Gustafson,** of Des Moines, will speak on the diagnosis and surgical correction of cardiac malformations.

At its meeting on March 11, the Des Moines County Medical Society saw a Grand Rounds film on malignant lesions of the breast and colon.

Dr. J. H. Stalford, a Life Member of the Iowa State Medical Society who practiced medicine at Sac City for more than 50 years and now lives in Los Angeles, recently completed a tour that took him to Honolulu, Tokyo, Hong Kong and Manila.

The April 1 meeting of the Scott County Medical Society will be devoted to business matters and to the instruction of delegates. There will be no scientific program.

At the March 20 meeting of the Woodbury County Medical Society, held at the Hotel Mayfair in Sioux City, **Dr. Sidney Ziffren,** professor of surgery at the S.U.I. College of Medicine, spoke on "Management of the Aged Surgical Patient."

On or about June 1, approximately a dozen physicians plan to move from downtown Des Moines offices to a couple of new buildings now under construction at 1401 Woodland Avenue, which are to be known as Doctors' Park. The new location is near the present eastern terminus of the Ingersoll Avenue Extension that is nearing completion, and it will be no more than a block away from the entrance to the newest wing of Iowa Methodist Hospital. **Dr. Robert A. Hayne,** a neurosurgeon whose offices are now in the Equitable



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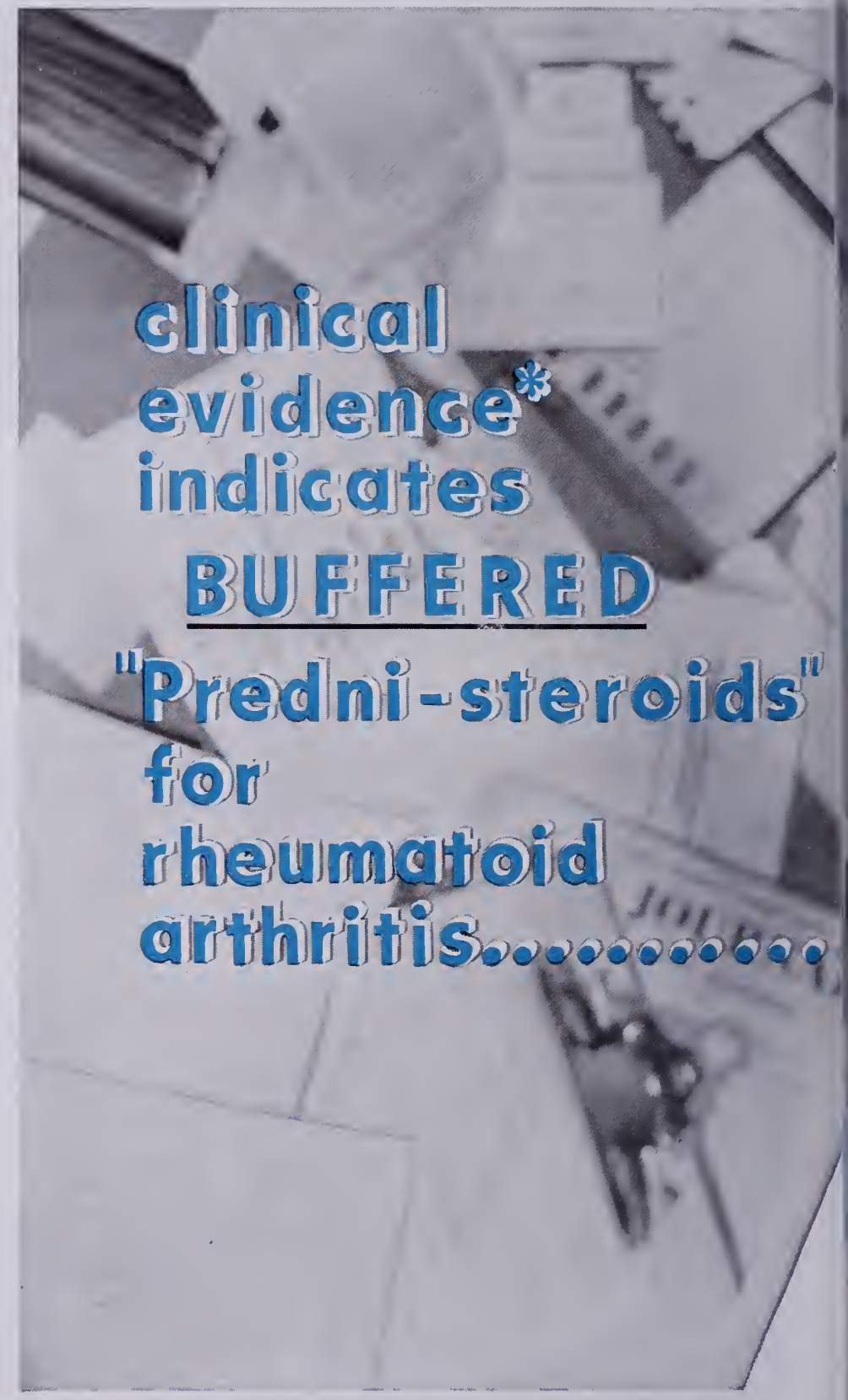
No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

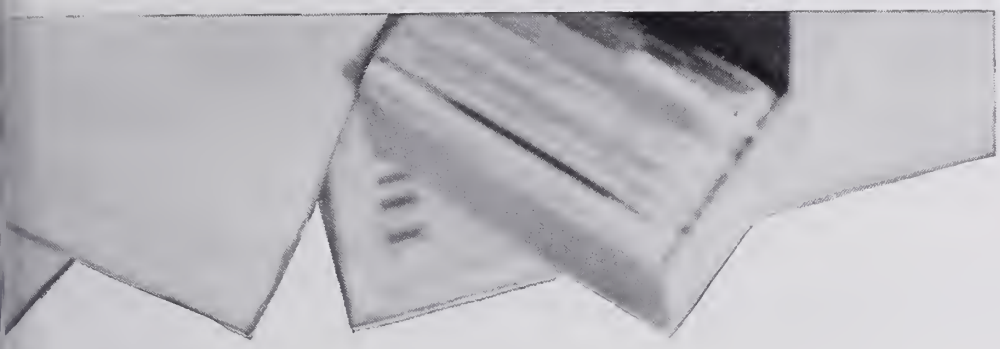
Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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nd diets were used concom-
with prednisone and predni-
we feel that these measures
be employed prophylacti-
offset any gastrointestinal
ects."—Dordick, J. R. *et al.*:
tate J. Med. 57:2049 (June
57.

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

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Building, has been the first to announce his intention of moving there.

Mr. M. S. Enabit, owner and manager of Midwest Advertising Service, Des Moines, has been appointed editor and business manager of HAWKEYE GP NEWS.

Dr. Victor Parson, of Des Moines, has been elected to active membership in the Iowa Academy of General Practice.

Dr. Walter Abbott, a Des Moines neurosurgeon and president-elect of the Iowa State Medical Society, will be the principal speaker at an all-day meeting of the Iowa Association of Medical Record Librarians, on April 24.

Dr. Chester C. Woodburn, Jr., of Des Moines, is to be on the faculty at a postgraduate course in Reconstructive Surgery of the Nasal Septum at the University of Cincinnati, April 12-19.

DEATHS

Dr. Arthur G. Rieke, 71, died on February 22 at the home of his sister in Blairstown. He practiced at Onslow and Clarence before moving to California, where for several years he was assistant superintendent of a hospital.

Dr. Louis Burton Amick, 76, who would have been honored this spring as a Fifty Year Club Member, died at the hospital in Sac City on February 22. He had been ill for several months with a heart condition.

Dr. Oscar Lewis Fullerton, 81, a Life Member of the Iowa State Medical Society, died at his home in Redding on February 12.

Dr. Bruce Ensley, 79, a Life Member of the Iowa State Medical Society, who practiced for nearly 50 years at Shell Rock, died on February 7 at a hospital in Waverly.

Dr. Glen W. Fridell, 34, of Slater, died at Lutheran Hospital, Des Moines, on March 5 of injuries he had received when his car went off Highway No. 69 south of Alleman early in the morning of March 2.

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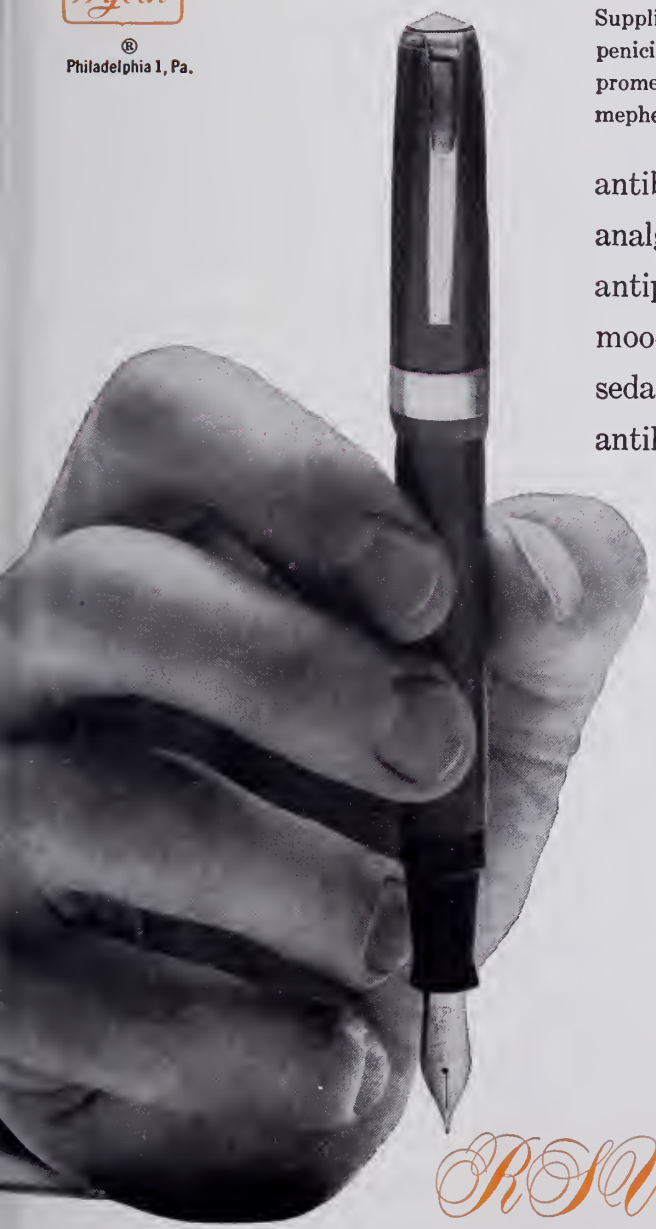
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SURGERY—Surgical Technic, Two Weeks, May 12, June 16
Surgery of Colon and Rectum, One Week, May 5, June 2
Basic Principles in General Surgery, Two Weeks, July 7
Gallbladder Surgery, Three Days, June 2
Surgery of Hernia, Three Days, June 5
General Surgery, Two Weeks, May 5; One Week, May 12
Breast & Thyroid Surgery, One Week, May 5
Fractures & Traumatic Surgery, One Week, June 9
American Board Review Course, Two Weeks, Fall of 1958
GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, June 2
Vaginal Approach to Pelvic Surgery, One Week, July 14
General & Surgical Obstetrics, Two Weeks, June 16
MEDICINE—General Review Course, Two Weeks, May 12
Electrocardiography, One Week Advanced Course, June 16
Hematology, One Week, June 2
American Board Review Course, One Week, September 29
PEDIATRICS—Two-Week Intensive Course, April 21
Neuromuscular Diseases; Cerebral Palsy, Two Weeks, July 7
DERMATOLOGY—Clinical & Didactic Course, Two Weeks, May 5
RADIOLOGY—Diagnostic X-Ray, Two Weeks, June 9
Clinical Uses of Radioisotopes, Two Weeks, May 5
CYSTOSCOPY—Ten-Day Practical Course, by appointment

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JUNE AMA MEETING IN SAN FRANCISCO

The AMA Annual Meeting will be held June 23-27 at the Civic Auditorium and adjacent buildings in San Francisco. Between 12,000 and 15,000 physicians are expected to attend.

Opening the general scientific program on Monday afternoon, June 23, will be a symposium on the care of the severely injured patient. Tuesday morning's general meeting will feature another symposium on hazards associated with therapeutic agents. Formal scientific section meetings will run from Tuesday afternoon through Friday morning.

Special panel discussions and demonstrations are being planned on perinatal problems; resuscitation of infants; nutrition; physical examination of physicians, using electrocardiograms and chest x-rays; fresh-tissue pathology; and treatment of fractures. The section on Miscellaneous Topics will include sessions on allergy; prevention of traffic accidents; prevention of sports injuries; and medical professional liability. In addition, there will be color television of surgery and a varied motion picture program.

The official convention hotel is the Sheraton Palace.

COUNTY SOCIETIES CAN GET ON TV

Well-known nursery rhyme characters like Humpty Dumpty and Jack and Jill helped to sell healthful living to many American families during 1957. About 54 county medical societies in 26 states persuaded local television stations to use AMA 20-second animated cartoons. Among other places, they arranged to have them shown in Los Angeles, Denver, San Francisco, Miami, Chicago, Louisville, Detroit, Kansas City, Tulsa, Cincinnati, Providence, Memphis, Milwaukee and Houston. The subjects covered in the 10-program series include treatment of colds, road safety, isolation, careful use of pointed toys, cold prevention, first aid, long life, diet, balanced meals and food preservation.

Each spot is "personalized" with the name of the sponsoring county or state medical society.

The series is still available, and county medical societies should request descriptive literature and order blanks from the AMA Bureau of Health Education if they have television stations in their areas. The films can be borrowed free of charge.

COMBINATION "DIP AND READ" TEST

The Ames Company has marketed a new combination "dip and read" stick for testing proteinuria and glycosuria, under the trade name Uristix Reagent Strips. The test portion for proteinuria is separated from that which tests for glycosuria by means of a barrier.

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SUPPLIED: CAPSULES: 250 mg. in bottles of 16 and 100; 125 mg. in bottles of 25 and 100.

PANMYCIN KM SYRUP: Each teaspoonful (5 cc.) contains tetracycline equivalent to 125 mg. tetracycline hydrochloride, and potassium metaphosphate, 100 mg., mint flavor, in 2 fluidounce and pint bottles.

2. PANALBA IN POTENTIALLY SERIOUS INFECTIONS

USUAL DOSAGE: ADULTS 1 or 2 capsules three or four times a day, depending on the type and severity of the infection. CHILDREN Proportionately less.

SUPPLIED: Each powder-blue-and-brown capsule contains Panmycin (tetracycline) Phosphate complex equivalent to 250 mg. tetracycline hydrochloride, and Albamycin (as novobiocin sodium) 125 mg.; in bottles of 16 and 100.

Also available: **PANALBA KM GRANULES** (Pediatric). When reconstituted, each 5 cc. teaspoonful contains Panmycin equivalent to tetracycline hydrochloride, 125 mg. and Albamycin (as novobiocin calcium) 62.5 mg., and potassium metaphosphate 100 mg.; in pleasantly flavored vehicle. Dosage is based upon amount of tetracycline—6 to 8 mg. per pound of body weight per day in 2 to 4 equally divided doses.

3. COMYCIN FOR THE 7 MONILIA-SUSCEPTIBLE TYPES

USUAL DOSAGE: ADULTS 1 or 2 capsules every 6 hours. CHILDREN Proportionately less.

SUPPLIED: Each brown-and-pink capsule contains tetracycline phosphate complex, equivalent to 250 mg. tetracycline hydrochloride, nystatin 250,000 units. In bottles of 16 and 100.

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STATISTICS ON HEART DISEASE

Heart attacks strike far more often when a person is resting than when he is working, according to the second issue of the Parke, Davis monthly publication PATTERNS OF DISEASE. Approximately 30 per cent of all coronary heart attacks occur when people are resting, as against a mere two per cent when the individuals are engaged in sports, running, lifting or other such activities. Several studies indicate that the highest death rate in males occurs among those employed at sedentary jobs.

The pamphlet goes on to show that less than one per cent of all victims of heart disease require complete rest. Adequate care is most important. Though 22 per cent of patients who are treated can expect improvement or a halting of the progress of their disease, only two per cent will improve without care.

Death rates for heart disease vary from state to state, with New England states heading the list and the Southwestern states such as Arizona and New Mexico ranking last. It seems to be a parallel finding that deaths from heart disease are more frequent during the winter months than during the summer. PATTERNS cites hypertension and arteriosclerosis as accounting for more than 90 per cent of deaths from cardiovascular disease. Coronary heart disease remains the leading heart problem.

THE YOUTHFUL ELECTORATE OF THE FUTURE

Despite the lengthening life-span of human beings throughout the world and the attention currently being focused upon aging citizens, the predominance of voters in the immediate future will be increasingly youthful, according to the AMA's economist Frank G. Dickinson, Ph.D.*

"Although the absolute number of older voters will continue to increase," he says, "the drive which their expanding numbers developed in the past half-century for welfare-state programs, anchored on free or almost-free public pensions, will slowly wane as their proportion declines." He concludes that "Australia will lead the parade of nations into the era of the 'younging electorate,' starting in 1961. Next will come New Zealand, where the proportion of adults (voters) age 50 and over will start to decline in 1962. France will follow in 1965, and the United States in 1970." He warns people against expecting immediate results of that change, however. "It does not follow necessarily that the waning of the welfare state will proceed at the same pace in each nation after its electorate has started 'younging.' "

* J.A.M.A., March 1, 1958.

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AMA GUIDE FOR DISABILITY RATINGS

In a special edition published on February 15, the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION has provided physicians with an authoritative guide for evaluating the physical status of applicants for cash benefits under the Social Security Act, as amended, and of individuals seeking workman's compensation or damages for injuries sustained in accidents for which someone other than themselves was allegedly responsible.

The guide is the work of the Committee on Medical Rating of Physical Impairment, which was appointed by the AMA Board of Trustees in September, 1956.

At the outset, the Committee took considerable pains to point out the proper scope of the physician in such evaluations. Disability, the Committee insisted, is something of which the physician has special competence for judging only a part—though unquestionably the most important part. At least to some extent, disability is determined by miscellaneous factors such as sex, age, education and social and economic adaptability. And as those considerations having to do with an individual's chances of getting and holding a job are by no means medical, doctors should leave them to lay administrators.

"Evaluation (rating) of permanent impairment," the Committee said, "is a function which physicians alone are competent to perform. Evaluation of permanent impairment defines the scope of medical responsibility and therefore represents the physician's role in the evaluation of permanent disability.

"Evaluation of permanent impairment is an appraisal of the nature and extent of the patient's illness or injury as it affects his personal efficiency in the activities of daily living. These activities are self-care, normal living postures, ambulation, elevation, traveling and non-specialized hand activities. It is not and never can be the duty of physicians to evaluate the social and economic effects of permanent impairment. . . . Unlike disability, permanent impairment can be measured with a reasonable degree of accuracy and uniformity on the basis of impaired function as evidenced by loss of structural integrity, pathology, or pain substantiated by clinical findings."

In accord with that statement of the physician's proper function, the Committee has presented a detailed set of standards, in the hope that doctors throughout the country may perform comparable examinations and arrive at uniform findings.

CORRECTION

As the result of a printer's error, the pictures of Mr. Jack Shelley, the news manager of stations WHO and WHO-TV, Des Moines, and Mr. Paul F. Ahlers, a Des Moines attorney, were transposed on page 124 of the March JOURNAL, with the result that the identifications were incorrect. The editors regret the confusion that the mistake may have caused.



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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

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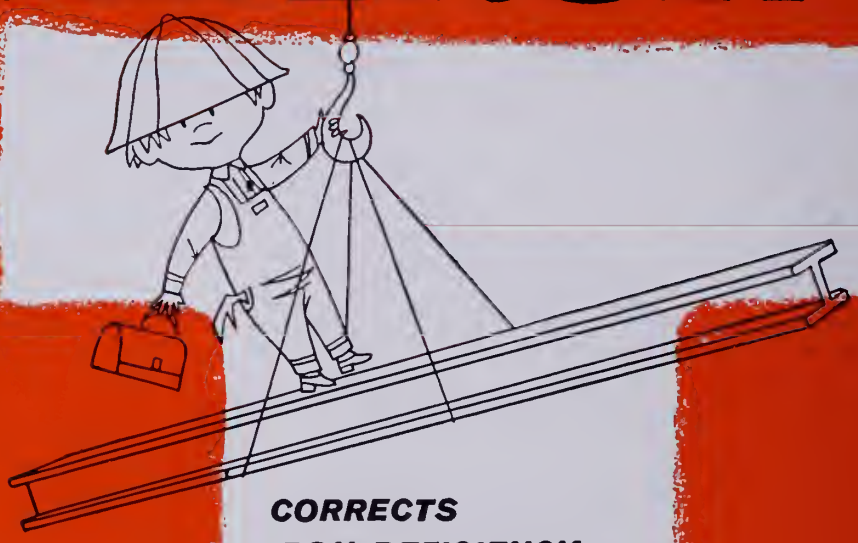
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Vitamin B_{12} Crystalline	25 mcgm.
Thiamine Mononitrate (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Alcohol	0.75%

Average dosage is 1 teaspoonful daily.
Available in bottles of 4 fl. oz.

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GROUP THERAPY FOR THE OBESE

TOPS (Take Off Pounds Sensibly), is a non-profit organization now 10 years old, with more than 15,000 members. Its founder is Mrs. Esther S. Manz, of Milwaukee, who got the idea for such groups from her physician, Dr. C. F. McDonald. In 1953, the AMA gave the project its implicit sanction by providing an auditorium to house the first national TOPS convention.

Dr. W. W. Bauer, director of the AMA Bureau of Health Education, says, "TOPS espouses two basic principles—that weight reduction can be carried out most satisfactorily through consultation with one's physician, and that 'fads' and 'diets' have no place in any such program. . . . TOPS officers have resisted tremendous commercial pressures that would have reduced the organization to nothing more than a vehicle for promotion of various special diets or food preparations."

TOPS is not a course of a few weeks or months. It is a planned, continuing program dedicated to helping the overweight. "We say, see your doctor," Mrs. Manz explains. "Let him outline a weight-reducing program for *you*, and then work together with others in the same boat to shed pounds."

The local clubs have names such as Good Losers, Shrinking Violets, Scale Scanners and Hips Away, and charters have been granted to 800 of them, in all parts of the continent. Recently, the membership was expanded to include men, teen-agers and "Tiny TOPS." Already, there are male groups in Wisconsin, Ohio, Iowa, Michigan and Massachusetts. Physicians are frequently invited to speak at club meetings, and health problems other than obesity are often discussed.

Doctors and others wishing information on the organization may address Mrs. Manz at 2306 South Howell Avenue, Milwaukee 7.

MYASTHENIA GRAVIS

A Hoffmann-La Roche Co. film entitled "Myasthenia Gravis: Symptoms, Diagnosis and Treatment," with a commentary by Dr. Olin A. Elliott, will be telecast over WOI-TV on Sunday, April 13, at 2:30 p.m.

It is being shown under the auspices of the Iowa Chapter of the Myasthenia Gravis Foundation, Inc., of which Mrs. Evelyn E. Pardee and Mrs. Joe Moore, both of Des Moines, are chairman and secretary, respectively.

The Chapter will have a booth at the ISMS Annual Meeting for the distribution of literature to physicians, and those who wish to secure those materials earlier may address their requests to 2925 School Street, Des Moines 11.

Plan to attend the 1958
ISMS Annual Meeting
Veterans Memorial Auditorium
Des Moines April 20-23

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Thursday at 1:15 p.m.

"HELP YOURSELF TO HEALTH"

April 3 ...How Small Towns Can Get a Doctor
April 10 .. How Small Towns Can Keep a Doctor
April 17 Success Stories From the Carolina Hills
April 24 ..... Working Together for Health

WSUI—Iowa City, Iowa

Monday at 3:30 p.m.

"GROWING UP"

April 7 ..... Boy Meets Girl
April 14 ..... Mama's Boy—Daddy's Girl
April 21 ..... Habits and Health
April 28 ..... Accidents and Alcohol

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

April 2 ..... The Healing Team
April 9 ..... Fractures
April 16 ..... Infertility
April 23 ..... Nervous Breakdown
April 30 ..... Eye Surgery

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

April 6 ..... Medical Research
April 13 ..... The Healing Team
April 20 ..... Fractures
April 27 ..... Infertility

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

April 6 ..... Acne
April 13 ..... Head Injuries
April 20 .... Anesthesiology and Recovery Room
April 27 ..... Hip Pinning

The foregoing schedules are subject to change at the discretion of the station managers.

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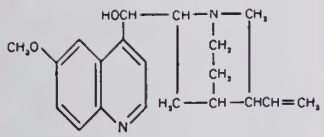
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"It has a high degree of clinical safety. . . It is considered to be the preferred antimalarial drug for treatment of disorders of connective tissue, because of the low incidence of gastrointestinal distress as compared to that with chloroquine phosphate."[1]

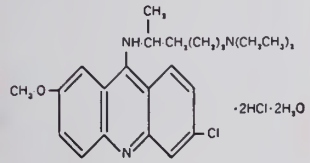
". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

". . . the least toxic of its class . . ."[3]

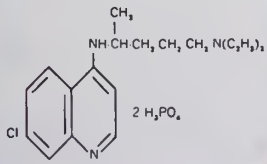
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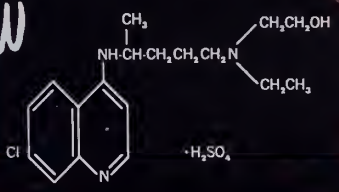
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1. L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
Theodore: Arch. Dermat. 73:572, June 1956.

Atabrine (brand of quinacrine), Aralen (brand of chloroquine), and Plaquenil (brand of hydroxychloroquine).

Coming Meetings

(Continued from page 209)

May 12-17	**Proctology for GP's.** University of Minnesota Center for Continuation Study, Minneapolis
May 12-18	**Topics in Clinical Medicine.** Johns Hopkins Hospital, Baltimore
May 12-23	**Advanced Course in Urology for Specialists.** N.Y.U., N.Y.C.
May 12-23	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
May 12-23	**Management of Allergic Diseases (Institute of Allergy).** Roosevelt Hospital, New York City
May 12-23	**Course V, Pediatrics.** Cook County Graduate School of Medicine, Chicago
May 12-24	**Technic in General Surgery, Course I.** Cook County Graduate School of Medicine, Chicago
May 13-15	**Diagnosis & Treatment of Cancer.** City of Hope, Duarte, California
May 14-15	**Anemia, Thrombocytopenic Purpura, Lymphomas, and Acute and Chronic Leukemias.** Indiana University School of Medicine, Indianapolis
May 14-16	**Interpretation of Laboratory Tests.** U. of California, San Francisco
May 15-18	**European Federation of International College of Surgeons.** Brussels, Belgium
May 16-17	**Sixth Annual Seminar, Children's Hospital of the East Bay.** Claremont Hotel, Berkeley
May 16-17	**Congress of the International Association for the Study of the Bronchii.** Munich
May 16-17	**Orthopedic Surgery and Fractures.** U. of California, San Francisco
May 16-18	**22nd Annual Meeting, American Academy of Applied Nutrition.** Huntington-Sheraton Hotel, Pasadena
May 17	**Problems of Malpractice.** Hotel Statler, Los Angeles
May 17-20	**Annual Meeting of the South Dakota Medical Society.** Huron
May 17-22	**Divisional Meeting of American Psychiatric Association.** Hawaiian Village, Honolulu
May 18-23	**Joint Annual Meeting, Canadian Public Health Assn. and Western Branch, Am. Public Health Assn.** Vancouver
May 19-20	**American Laryngological Association.** San Francisco
May 19-21	**53rd Annual Meeting, American Trudeau Society.** Convention Hall, Philadelphia
May 19-23	**Clinical Bronchoscopy.** Cook County Graduate School of Medicine, Chicago
May 19-23	**Mycotic Infection.** Walter Reed Army Medical Center, Washington, D.C.
May 19-23	**Dermatology & Syphilology for Dermatologists.** N.Y.U., N.Y.C.
May 20-23	**Annual Meeting, Illinois State Medical Society.** Sherman Hotel, Chicago
May 20-24	**Seventh Annual Meeting, American College of Cardiology.** Chase-Park Plaza Hotel, St. Louis.
May 21-23	**American Broncho-Esophagological Association.** San Francisco
May 22-24	**Annual Meeting, Minnesota State Medical Association.** Leamington Hotel, Minneapolis
May 22-24	**Surgery for Surgeons.** University of Minnesota Center for Continuation Study, Minneapolis
May 23-24	**Collagen Diseases.** U.C.L.A., Los Angeles
May 23-25	**Annual Meeting and Scientific Session, California Heart Association.** Hacienda Hotel, Fresno
May 23-25	**Office Orthopedics in General Practice.** Hotel Statler, Los Angeles
May 24-25	**Geriatrics, With Emphasis on Heart Disease and Psychosocial Problems of Later Life.** Washington University, St. Louis
May 25-31	**59th Annual Meeting, World Congress of Gastroenterology and American Gastroenterological Association.** Sheraton-Park and Shoreham Hotels, Washington, D.C.
May 26-27	**Rheumatic Heart Disease, Arteriosclerosis and Congestive Failure.** Indiana University School of Medicine, Indianapolis
May 26-30	**Pediatrics for Pediatricians and GP's.** Children's Hospital, Philadelphia

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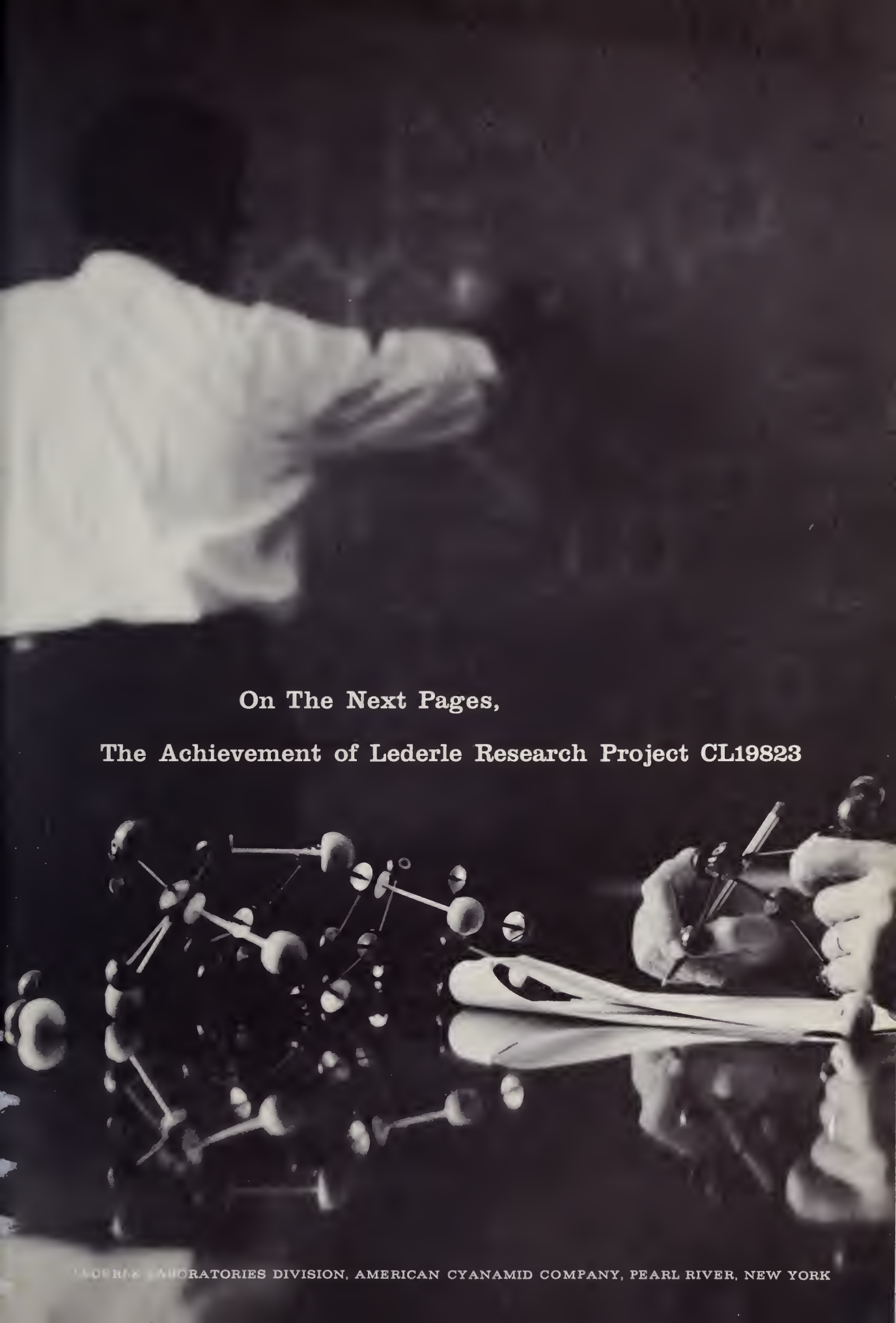
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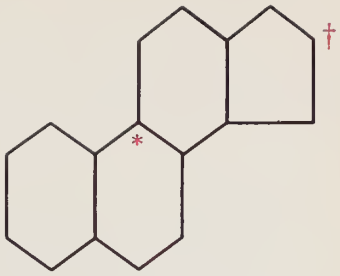
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- **a new high** in anti-inflammatory effects with lower dosage (averages 1/3 less than prednisone)
- **a new low** in the collateral hormonal effects associated with all previous corticosteroids
  - No sodium or water retention
  - No potassium loss
  - No interference with psychic equilibrium
  - Low incidence of peptic ulcer and osteoporosis

Biological Effects of Aristocort

with particular emphasis on:

Kidney function

Animal studies on ARISTOCORT[1] have not demonstrated any interference with creatinine or urea clearance. Autopsy surveys of organs of animals on prolonged study of this medication have shown no renal damage.

Sodium and water

ARISTOCORT produced an increase of 230 per cent of water diuresis and 145 per cent sodium excretion when compared to control animals.[1] Metabolic balance studies in man revealed an average negative sodium balance of 0.8 Gm. per day throughout a 12-day period on a dosage of 30 mg. per day.[2] Additional balance studies showed actual sodium loss when ARISTOCORT was given in doses of 12 mg. daily.[3] Other investigators observed significant losses of sodium and water during balance studies and that those patients with edema from some older corticosteroids lost it when transferred to ARISTOCORT.[4,5] In two studies of various rheumatic disorders (194 cases) on prolonged treatment, sodium and water retention was not observed in a single case.[6,7]

Potassium and chlorides

There was no active excretion of potassium or chloride ions in animals given maintenance doses of ARISTOCORT 25 times that found to be clinically effective.[1] Potassium balance studies in humans[2,3] revealed that negative balance did not occur even with doses somewhat higher than those employed for prolonged therapy in rheumatoid arthritis. Hypokalemia, hyperkalemia or hypochloremia did not occur, when tested, in 194 patients with rheumatoid arthritis treated for up to ten and one-half months.[6,7]

Calcium and phosphorus

Phosphate excretion in animals[1] was not changed from normal even with amounts 25 times greater (by body weight) than those known to be clinically effective. Human metabolic balance studies[3] demonstrated that no change in calcium excretion occurred on dosages usually employed clinically when the compound is administered for its anti-inflammatory effect. Even at a dosage level twice this, slight negative balance appeared only during a short period.

Protein and nitrogen balance

Positive nitrogen balance was maintained during a human metabolic study on maintenance dosage of 12 mg. per day.[3] At dosages two to three times normal levels, positive balance was maintained except for occasional short periods in metabolic studies of several weeks' duration.[2,3]

There was always a tendency for normalization of the A/G ratio and elevation of blood albumin when ARISTOCORT was used in treating the nephrotic syndrome.[8]



Liver glycogen deposition and inflammatory processes

An intimate correlation exists between the ability of a corticosteroid to cause deposition of glycogen in the liver and its capacity to ameliorate inflammatory processes.

In animal liver glycogen studies, relative potencies of ARISTOCORT over cortisone of up to 40 to 1 have been observed. Compared to ARISTOCORT, five to 12 times the amount of prednisone is required to produce varying but equal amounts of glycogen deposition in the liver.[1]

Most patients show normal fasting blood sugars on ARISTOCORT. Diabetic patients on ARISTOCORT may require increased insulin dosage, and occasional latent diabetics may develop the overt disease.

Anti-inflammatory potency of ARISTOCORT was determined by both the asbestos pellet[1] and cottonball[9] tests. It was found to be nine to 10 times more effective than hydrocortisone in this respect.

Gastric acidity and pepsin

The precise mode of ulcerogenesis during treatment with corticosteroids is not known. There is much experimental evidence for believing this may be related to the tendency of these agents to increase gastric pepsin and acidity—and this cannot be abolished by vagotomy, anticholinergic drugs or gastric antral resection.[10] Clinical studies[11] of patients on ARISTOCORT revealed that uropepsin excretion is not elevated. Further, their basal acidity and gastric response to histamine stimulation were within normal limits.

Central nervous system

The tendency of corticosteroids to produce euphoria, nervousness, mental instability, occasional convulsions and psychosis is well known.[12] The mechanism underlying these disturbances is not well understood.

ARISTOCORT, on the contrary, does not produce a false sense of well being, insomnia or tension except in rare instances. In the treatment of 824 patients, for up to one year, not a single case of psychosis has been produced. In general, it appears to maintain psychic equilibrium without producing cerebral stimulation or depression.

Bibliography

1. Experimental Therapeutics Section, Lederle Laboratories. To be published. 2. Bunim, J. J., Whedon, G., and Black, R. L.: Personal Communication. 3. Hellman, L., Zumoff, B., Schwartz, M. K., Gallagher, T. F., Berntsen, C. A., and Freyberg, R. H.: Antirheumatic and Metabolic Effects of a New Synthetic Steroid, paper quoted in Bull. Rheumat. Dis. 7: 130, 1957. 4. Spies, T. D.: South. M. J. 50: 216, (Feb.) 1957. 5. Freyberg, R. H.: Personal Communication. 6. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at the International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 7. Hartung, E. F.: To be published. 8. Hellman, L., Zumoff, B., Kretschmer, N. and Kramer, B.: Personal Communication. 9. Dorfman, R. I., and Dorfman, A. S.: Personal Communication. 10. Gray, S. J., Ramsey, C. G., Villarreal, R., and Krakauer, L. J.: Edited by H. Selye and G. Heuser in: Fifth Annual Report on Stress, 1955-56. M.D. Publications, Inc., New York, 1956, p. 138. 11. Dubois, E. L.: Personal Communication. 12. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics 19:95, 1957.

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The Promise of Aristocort in Reduction of Side Effects

It is axiomatic to affirm that the undesirable collateral hormone effects of corticosteroids increase in frequency and severity the higher the dosage and the longer used.

It has also become well recognized that the most serious of the major side effects from long-term corticosteroid treatment are peptic ulcers, osteoporosis with fracture, drug psychosis and euphoria, and sodium and water retention leading often to general tissue edema and hypertension.

It is significant that of the close to 400 patients on the lower dosage schedules found effective in bronchial asthma and dermatologic conditions, only 1 case of peptic ulceration has developed. No other of the above side effects have been observed even though ARISTOCORT was administered continuously to them for periods as long as one year.

The treatment of rheumatoid arthritis with steroids appears to result in the highest incidence of side effects. For this reason, the side effects associated with ARISTOCORT therapy in 292 patients with rheumatoid arthritis are reported below.

Peptic Ulcer

The occurrence of peptic ulcer in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is approximately 1 per cent (2 of the 3 occurred in patients transferred from prednisone). In the remaining 532 cases recently analyzed, only one ulcer has been discovered in a patient who apparently had no ulcer when he was changed from another steroid.

Osteoporosis and Compression Fractures

The occurrence of osteoporosis with compression fracture in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is 0.33 per cent (1 case[1]). Although these results are encouraging, determination of the true incidence of osteoporosis will have to await the passage of more time.

Euphoria and Psychosis

The euphoria so commonly produced by all previous corticosteroids has seemed a most desirable attribute to patients. In penalty, however, they have often later to pay for this by mental disturbances, varying from mild and transitory to severe depression and psychosis,[2] and toxic syndromes producing even convulsions and death.[3]

Since the onset of these complications is not directly related to duration of steroid administration,[4] the fact that not one case of psychosis occurred in 824 patients treated with ARISTOCORT, is most encouraging.

Sodium Retention—Hypertension-Potassium Depletion

When 17 patients were changed from prednisone to ARISTOCORT, 11 rapidly lost weight although only one had had visible edema.[5] Sodium and water retention, hypokalemia or hyperkalemia and steroid hypertension did not appear in 194 rheumatoid arthritis patients treated with ARISTOCORT.[1,6]

The interrelation between blood and body sodium, and steroid hypertension has long been generally appreciated.[7,8] Except in rare instances, or when unusually high doses are used (e.g., leukemia), the problem of edema and hypertension caused by sodium and water retention, has been eliminated with ARISTOCORT.

Minor Side Effects

Collateral hormonal effects of less serious consequence occurred with approximately the same frequency as with the older corticosteroids.[1] These include erythema, easy bruising, acne, hypertrichosis, hot flashes and vertigo. Several investigators have reported symptoms not previously described as occurring with corticosteroid therapy, e.g., headaches, lightheadedness, tiredness, sleepiness and occasional weakness.

Moon facies and buffalo humping have been seen in some patients on ARISTOCORT. However, ARISTOCORT therapy, in many instances, resulted in diminution of "Cushingoid" signs induced by prior therapy. Where this occurs, it may be related to reduced dosage on which patients can be maintained.

Reduction of dosage by one-third to one-half

In a double-blind study of comparative dosage in patients with rheumatoid arthritis,[9] 70 per cent of the cases were as well controlled on a dose of ARISTOCORT one-half that of prednisone. A general recommendation can be made that ARISTOCORT be used in doses two-thirds that of prednisone or prednisolone in the treatment of rheumatoid arthritis. There are individual variations, however, and each patient should be carefully titrated to produce the desired amount of disease suppression.

Comparative studies, of patients changed from prednisone, indicate reduced dosage of ARISTOCORT in bronchial asthma and allergic rhinitis (33 per cent),[5] and in inflammatory and allergic skin diseases (33-50 per cent).[10,11]

General Precautions and Contraindications

Administration of ARISTOCORT has resulted in lower incidence of major serious side effects, and in fewer of the troublesome minor side effects known to occur with all previously available corticosteroids. However, since it is a highly potent glucocorticoid, with profound metabolic effects, all traditional contraindications to corticosteroid therapy should be observed.

No precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

Since ARISTOCORT has less of the traditional side effects, the appearance of sodium and water retention, potassium depletion, or steroid hypertension cannot be used as signs of overdosage. As a rule patients will lose some weight during the first few days of treatment as a result of urinary output, but then the weight levels off.

Patients do not develop the abnormally voracious appetite common to previous corticosteroid administration. In fact, some patients experienced anorexia, and it is advisable to inform patients of this and to recommend they maintain a normal intake of food, with emphasis on liberal protein intake.

While precipitation of diabetes, peptic ulcer, osteoporosis, and psychosis can be expected to appear rarely from ARISTOCORT, they must be searched for periodically in patients on long-term steroid therapy.

Traditional precautions should be observed in gradually discontinuing therapy, in meeting the increased stress of operation, injury and shock, and in the development of intercurrent infection.

There is one overriding principle to be observed in the treatment of any disease with ARISTOCORT. *The amount of the drug used should be carefully titrated to find the smallest possible dose which will suppress symptoms.*

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Bunim, J. J.: Bull. New York Acad. Med. 33:461, 1957. 3. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957. 4. Goolker, P., and Schein, J.: Psychosom. Med. *15*:589, 1953. 5. Sherwood, H., and Cooke, R. A.: J. Allergy *28*:97, 1957. 6. Hartung, E. F.: Personal Communication. 7. Schroeder, H. A.: J.A.M.A. *162*:1362, 1956. 8. Thorn, G. W., Laidlaw, J. C., and Goldfein, A.: Ciba Found. Coll. on Endocrinology, J. & A. Churchill, Ltd., London, *8*:343, 1955. 9. Freeman, H., Bachrach, S., McGilpin, H. H., and Dorfman, R. I.: Personal Communication. 10. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A. *165*:1821, 1957. 11. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.

The Promise of Aristocort in Rheumatoid Arthritis

ARISTOCORT *therapy has been intensely and extensively studied for periods up to one year on 292 patients with rheumatoid arthritis.*

Significant is the fact that most patients were *severe* arthritics, transferred to ARISTOCORT from other corticosteroids because satisfactory remission had not been attained, or because the seriousness of collateral hormonal effects had made discontinuance desirable.

Results of treatment

Freyberg and associates[1] treated 89 patients with rheumatoid arthritis (A. R. A. Class II or III and Stage II or III). Of these, 51 were on ARISTOCORT therapy from three to over 10 months. In all but a few patients, satisfactory suppression of rheumatoid activity was obtained with 10 mg. per day. Thirteen were controlled on 6 mg. or less a day, and for periods to 180 days. The investigators reported therapeutic effect in most cases to be A. R. A. Grade II (impressive) and that marked reduction in sedimentation rates occurred.

Another interesting observation in this study: Of the 89 patients treated, 12 had active ulcers, developed from prior steroid therapy. *In six patients, the ulcers healed while on doses of* ARISTOCORT *sufficient to control arthritic symptoms.*

Hartung[2] treated 67 cases of rheumatoid arthritis for up to 10 months. He found the optimum maintenance dose to be 11 mg. per day. Nineteen of these patients were treated for six to 10 months with an "excellent" therapeutic response.

Dosage and course of therapy

The initial dosage range recommended is 14 to 20 mg. per day—depending on the severity and acuteness of signs and symptoms. Dosage is divided into four parts and given with meals and at bedtime. Anti-rheumatic effect may be evident as early as eight hours, and full response often obtained within 24 hours. This dosage schedule should be continued for two or three days, or until all acute manifestations of the disease have subsided, whichever is later.

The maintenance level is arrived at by reduction of the total daily dosage in decrements of 2 mg. every three days. The range of maintenance therapy has been found to be from 2 mg. to 15 mg. per day—with only a very occasional patient requiring as much as 20 mg. per day. Patients requiring more than this should not be long continued on steroid therapy.

The aim of corticosteroid therapy in rheumatoid arthritis is to suppress the disease only to the stage which will enable the patient to carry out the required activities of normal living or to obtain reasonable comfort. The maintenance dose of ARISTOCORT to achieve this end is arrived at while making full use of all other established methods of controlling the disease.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Hartung, E. F.: Paper presented at Florida Academy of General Practice, St. Petersburg, Florida, Nov. 2, 1957.

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The Promise of Aristocort in Respiratory Allergies

About 200 patients with respiratory allergies have been treated with ARISTOCORT *for continuous periods up to eight months.*

Results of treatment

Sherwood and Cooke[1,2] gave ARISTOCORT to 42 patients with bronchial asthma and allergic rhinitis. Average dose needed to control the asthmatic group was approximately 6 mg. per day (range, 2 to 14 mg.). Results, which were called "good to excellent" in all but four, were achieved on one-third less than similarly effective doses of prednisone or prednisolone.

The investigators noted other major improvements in ARISTOCORT therapy over the older steroids. There was no increase in blood pressure in any patient: *on the contrary, in 12 patients, there was reduction of pressure when they were transferred to* ARISTOCORT. One patient had required auxiliary antihypertensive drug therapy; over a nine-week period on ARISTOCORT, the pressure gradually fell from 206/100 to 136/79. In another case, the pressure slowly dropped from 205/105 to 154/86.

The number of cases in which these investigators tried ARISTOCORT in allergic rhinitis was not large enough to provide significant averages. However, the range of effective therapy was from 2 to 6 mg. per day. These strikingly low daily doses resulted in control of all signs and symptoms.

Schwartz[3] treated 30 patients with chronic, intractable bronchial asthma. At an average daily dose of 7 mg., he reported "good to excellent" results in all but one. Spies,[4] Barach[5] and Segal,[6] reported similar results at average daily maintenance doses of 4 to 10 mg. of ARISTOCORT.

Dosage and course of therapy

The initial dosage range recommended is 8 to 14 mg. of ARISTOCORT daily. Although a rare, very severe case may require more than this on the first day of therapy, these dosages will usually result in prompt alleviation of dyspnea, wheezing and cyanosis. Patients are soon able to carry out a normal span of daily activity.

The maintenance level is arrived at by reduction of the total daily dose every three days in decrements of 2 mg.; in the over-all series, the average daily dose for bronchial asthma is approximately 8 to 10 mg. and for allergic rhinitis, 2 to 6 mg. per day. All total daily doses should be divided into four parts and given with meals and at bedtime. As in every condition where corticosteroids are employed, each patient's treatment should be individualized and the maintenance arrived at by careful titration against signs and symptoms of disease.

Patients with chronic bronchial asthma may require steroid therapy for several months. And since asthma may be associated with cardiac disease, especially in the older age groups, ARISTOCORT is particularly useful because of its ability to cause excretion of sodium and water.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Sherwood, H., and Cooke, R. A.: J. Allergy 28:97, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Schwartz, E.: Personal Communication. 4. Spies, T. D.: Personal Communication. 5. Barach, A. L.: Personal Communication. 6. Segal, M. S.: Personal Communication.

Lederle

The Promise of Aristocort

in Nephrotic Syndrome

◊ *Fourteen patients with the nephrotic syndrome have been treated with* ARISTOCORT *for continuous periods of up to six weeks.*

Results of treatment

Hellman and associates[1,2] noted that ARISTOCORT, because of its favorable electrolyte effects, may well be the most desirable steroid to date in treatment of the nephrotic syndrome. However, thus far its use has been reported in only 14 children, of whom 8 had a complete diuresis and disappearance of all abnormal chemical findings. Four of the patients had diuresis, but continued to show some abnormal chemical findings, while two patients with signs of chronic renal disease failed to respond.

Dosage and course of therapy

In order to produce maximal response, 20 mg. should be given daily until diuresis occurs. The dose should then be decreased gradually and maintained around 10 mg. a day. After the patient has been in remission for some time, it may be advisable to diminish the dose gradually and discontinue ARISTOCORT.

in Pulmonary Emphysema and Fibrosis

◊ *Eleven patients with pulmonary emphysema and/or fibrosis were treated with* ARISTOCORT *for continuous periods of over two months.*

Results of treatment

Only small series of cases observed by Barach,[3] Segal,[4] and Cooke,[5] are available. Barach treated patients who were not adequately controlled by prednisone, with the same dose of ARISTOCORT with significant improvement.

Dosage and course of therapy

The initial suppressive dose range recommended is 10-14 mg. daily. Frequently, there is a prompt decrease in cyanosis and dyspnea, with increase in vital capacity.

The average maintenance dose level was 8 mg. a day. If it is desired to maintain a patient on continuous therapy for some months, dosages as low as 2 mg. a day have been successful. All decreases in dosage should be gradual and at a rate of 2 mg. decrements in total daily amount, every two to four days. The daily dosage is divided into four parts and given with meals and at bedtime.



in Neoplastic Diseases

◊ *Forty-four children and adults have been given* ARISTOCORT *for palliative treatment of acute leukemia, chronic lymphatic leukemia, lymphosarcoma, lympholeukosarcoma and Hodgkin's disease.*

Results of treatment

Farber[6] has treated 22 children with acute leukemia for an average of three weeks. Of the 17 observed long enough to judge the efficacy of the medication, he rated five as excellent, three as good, two as fair and seven as poor responses.

Hellman and associates[7] gave ARISTOCORT to a group of patients with the various lymphomas in doses of 40 to 50 mg. a day—occasionally up to 100 milligrams. Treatment was continued in some cases for 17 weeks. Response was classified as good for the palliative purposes for which the drug was given.

Dosage and course of therapy

Massive initial suppressive doses of 40 to 50 mg. per day in children (1 mg./kg./day) and up to 100 mg. a day in adults have been administered.

Responses to any specific dosage in these conditions vary so widely that only a general dosage range can be indicated. Treatment must be individualized; rate of reduction in dosage and determination of maintenance levels cannot be categorized.

Miscellaneous

Patients with various other diseases have been treated by several clinical investigators. These include patients with osteoarthritis, acute bursitis, rheumatic fever, spondylitis, other "collagen-vascular" diseases (dermatomyositis, etc.), thrombocytopenic purpura, chronic eosinophilia, hemolytic anemia, diuretic-resistant congestive heart failures, and adrenogenital syndrome.

There have not been sufficient patients in any of the above categories to permit definitive treatment schedules to be finally established for ARISTOCORT. Additional studies are now in progress and physicians desiring information on any of these diseases are requested to write to Lederle Laboratories, Pearl River, New York for available data.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Presented at Nephrosis Conf., Bethesda, Md., Oct. 26, 1957. 2. Ibid: Personal Communication. 3. Barach, A. L: Personal Communication. 4. Segal, M. S.: Personal Communication. 5. Cooke, R. A.: Personal Communication. 6. Farber, S.: Personal Communication. 7. Hellman, L., Diamond, H. D., Ellison, R., Jaslowitz, B., Murphy, M. L., Tan, C. and Zumoff, B.: Personal Communication.

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The Promise of Aristocort

in Inflammatory and Allergic Skin Diseases

◊ *Over 200 patients with allergic and inflammatory skin diseases (including psoriasis, atopic dermatitis, exfoliative dermatitis, pemphigus, dermatitis herpetiformis, eczematoid dermatitis, contact dermatitis and angioneurotic edema) have been treated continuously with* ARISTOCORT *for periods of up to eight months.*

Results of treatment

Rein and associates[1] treated 26 patients with severe dermatitis. Twenty-four had been on prednisone when changed to ARISTOCORT. While some had found satisfactory symptomatic relief, others had also developed side effects—moon face, buffalo hump, increased appetite with excessive weight increases and gastro-intestinal disturbances.

These investigators determined the equivalent dosage of ARISTOCORT to be approximately two-thirds that required to control symptoms on the previous corticosteroid. Thirteen of the 26, who had developed moon face, noted either an actual decrease or no further increase when transferred to ARISTOCORT. In addition: *Voracious appetites disappeared, with loss of weight in 11 patients; there was no elevation in blood pressure, and no necessity to restrict sodium or administer supplemental potassium.* Sherwood and Cooke,[2] and Shelley and Pillsbury[3] obtained similar results in allied disorders.

Hollander[4] first observed that ARISTOCORT appears to have striking affinity for the skin and great activity in controlling such diseases as psoriasis, for which other corticosteroids have been indifferently effective. Shelley and Pillsbury,[3] in 50 cases of acute extending psoriasis found that over 60 per cent were markedly improved.

Dosage and course of therapy

The recommended initial suppressive dose range is 14 to 20 mg. per day. In very severe cases, temporary dosages up to 32 mg. a day have been successfully employed. Once lesions are suppressed, gradually reduce dose to the maintenance level—which may be as low as 2 mg. per day.

Bibliography

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A., *165*:1821, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Shelley, W. B., and Pillsbury, D. M.: Personal Communication. 4. Hollander, J. L.: Discussion of Paper by Black, R. L., presented at International Congress on Rheumatic Diseases, Toronto, June 28, 1957.

in Disseminated Lupus Erythematosus

◊ *Forty patients with disseminated lupus erythematosus were treated with* ARISTOCORT *for continuous periods of up to nine months.*

Results of treatment

Patients have responded very promisingly to therapy. Dubois[1] has had the largest single experience (28 cases) with ARISTOCORT in the treatment of this disease. He reported 25 of the 28 responded favorably.

Freyberg,[2] Hartung,[3] Hollander,[4] Spies,[5] and Segal,[6] each in smaller series of cases, reported similarly good therapeutic responses.

Dosage and course of therapy

The initial suppressive dose recommended is 20-30 mg. daily. Once the desired effect is achieved, the dose should be reduced gradually to maintenance levels (3 to 18 mg. per day).

In severely ill patients large doses may be required for several days in order to preserve life. Even on these large doses, edema and sodium retention have not occurred.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Dubois, E. L.: Personal Communication. 2. Freyberg, R. H.: Personal Communication. 3. Hartung, E. F.: Personal Communication. 4. Hollander, J. L.: Personal Communication. 5. Spies, T. D.: Personal Communication. 6. Segal, M. S.: Personal Communication.

Lederle

May 26-30	**Internal Medicine.** University of Tennessee College of Medicine, Memphis
May 26-June 4	**Eleventh World Health Assembly (World Health Organization).** Minneapolis
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May 28-29	**Opthalmic Therapy.** Indiana University School of Medicine, Indianapolis

FORENSIC MEDICINE

For its Ninth Annual Lecture in Honor of Dr. F. G. Thompson, Sr., the Thompson-Brumm-Knepper Clinic, of St. Joseph, Missouri, will present Dr. LeMoyne Snyder, a lawyer as well as a physician, who was medical director of the Michigan State Police from 1933 until 1948 and who now is engaged in the private practice of legal medicine. He will speak in St. Joseph on Thursday, April 24, on the subject "Murder Challenges the Doctor."

Further information may be secured from Dr. E. F. Butler, of the Clinic.

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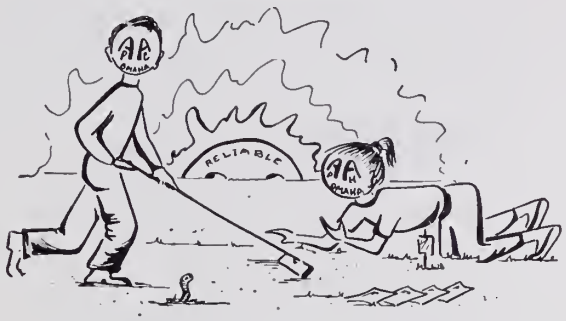
A new 16 mm. color motion picture on the clinical management of auto-immune hematologic disorders has been released for showing to professional groups by Schering Corporation. It was photographed unrehearsed during one of the weekly blood clinics at New England Center Hospital, Boston, and it concerns the uses of prednisone (Meticorten®) in the therapy of hematologic disorders, particularly those due to an abnormal immunologic mechanism. It can be borrowed free of charge from the Schering Audio Visual Department, Bloomfield, New Jersey.

PROBLEMS OF THE CHRONICALLY ILL

Gerhard Hartman, Ph.D., administrator of University Hospitals, Iowa City, has announced the Second Annual Hospital-Social Welfare Conference, to be held in the S.U.I. Memorial Union building on Monday and Tuesday, April 14 and 15. It is to be attended by physicians, social welfare workers, nursing-home operators, public health nurses, hospital administrators and others who are concerned with the problems of the chronically ill.

Because facilities are limited, registration applications will be considered in the order received. The fee for each participant, $5, is payable at registration.

The objectives of the conference are (1) to identify and understand local needs; (2) To ascertain professional and service group obligations; (3) To study existing services both quantitatively and qualitatively; (4) to determine what improvements are necessary; and (5) to stimulate community action. The sponsoring organizations are the State Department of Social Welfare, the State Department of Health, the State Department of Public Instruction, the ISMS, the Iowa Nurses Association, the Iowa Nursing Home Association and the Iowa Hospital Association.



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(Additional Want Ads on page lxvi)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

WANTED: Associate in general practice. Northeast Iowa town of 5,000; new office fully equipped; local hospital. Good salary to start and partnership after first year. Address: No. 1,074, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

WANTED: General practitioner with special interest in internal medicine, to fill vacancy in four-man clinic in midwestern Iowa community of 2,500. Hospital, laboratory and x-ray facilities available. Beginning salary, with eventual partnership. Address: No. 1,075, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

FOR LEASE: Colorado-Lakewood Medical Building can custom-tailor your office suite. Progressive, exclusive suburban Denver area. Past few months beyond expectations. Need G-P, EENT, O.B.-Gynecologist, Heart Specialist & Skin Specialist. Reasonable rent, restricted building, air-conditioning, ample parking. Reply: Management Dept., Lakewood Realty, 7845 West Colfax, Denver 15, Colorado.

WANTED: Young physician to work with elderly doctor in north-central Iowa town, and to take over the practice when he has become well established. Retiring physician will help with financing if necessary. Fine farming community, good schools and churches, hospital 15 minutes distant. Practice now grosses between $30,000 and $34,000, and can be greatly increased. Applicant must furnish credentials, and if accepted can arrange to start work either at once or soon. Address: No. 1,072, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo. Iowa.

RADIOLOGIST, certified in diagnosis and therapy, desires association with established radiologist, group of radiologists, clinic or hospital. Income not of primary importance. Address: No. 1,069, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

General practitioner with special interest in obstetrics and pediatrics desires association with indivdual or small group in Iowa community of 5,000 or over. Address No. 1082, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: E.N.T., bronchoscopy and esophagoscopy instruments. Write: M. E. Godbey, M.D., University Hospitals, Iowa City, Iowa.

FOR SALE OR LEASE: Seven-room air-conditioned office recently built. Lucrative practice in rich farming and industrial area. New open-staff hospital in town. Present occupant wishes to complete board training. When he leaves, the town will be without a surgeon. Territory and population warrant two doctors. Address: No. 1,076, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

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FOR SALE: General practice grossing between $55,000 and $60,000 in a metropolitan community of 90,000 in northeast Iowa. The vacating physician is returning to a residency. Excellent opportunity. Address: No. 1,077, Journal of the Iowa State Medical Society, 529 Thirty-sixth Street, Des Moines 12, Iowa.

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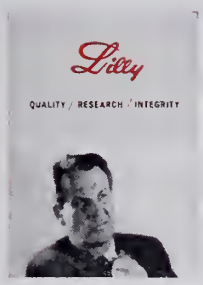
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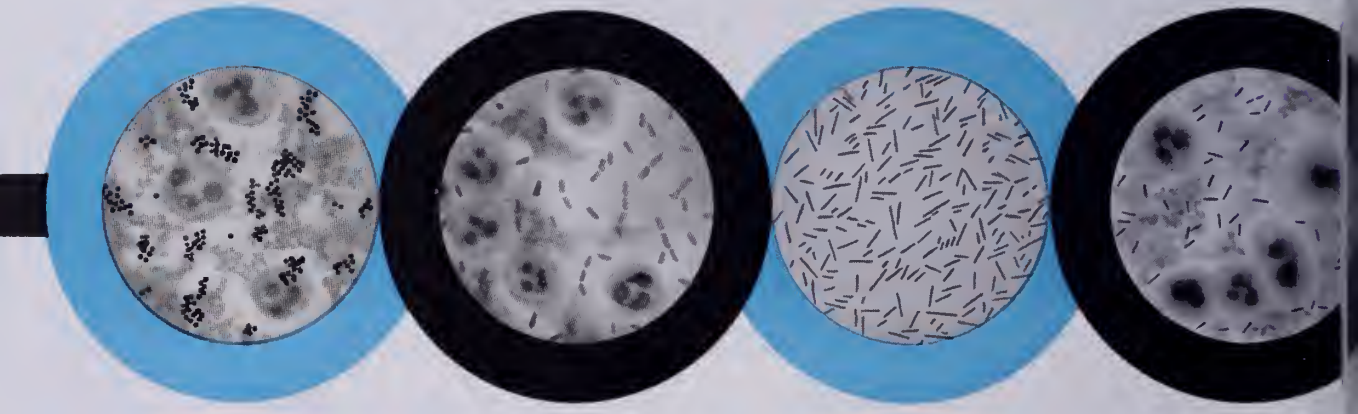
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REFERENCES: (1) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M.A.J.* 77:844 (Nov. 1) 1957. (2) Schneierson, S. S. *J. Mount Sinai Hosp.* 25:52 (Jan.-Feb.) 1958. (3) Koch, R., & Donnell, G.: *California Med.* 87:313, 1957. (4) Waisbren, B. A., & Strelitzer, C. L.: A Five-Year Study of the Antibiotic Sensitivities and Cross Resistances of Staphylococci in a General Hospital, paper presented at Fifth Ann. Symp. on Antibiotics, Washington, D. C., Oct. 2-4, 1957. (5) Doniger, D. E., & Parenteau, Sr. C. M.: *J. Maine M. A.* 48:120, 1957. (6) Royer, A.: Changes in Resistance to Various Antibiotics of Staphylococci and Other Microbes, paper presented at Fifth Ann. Symp. on Antibiotics, Washington, D. C., Oct. 2-4, 1957. (7) Hasenclever, H. F.: *J. Iowa M. Soc.* 47:136, 1957. (8) Josephson, J. E., & Butler, R. W.: *Canad. M.A.J.* 77:567 (Sept. 15) 1957. (9) Rhoads, P. S.: *Postgrad. Med.* 21:563, 1957. (10) Holloway, W. J., & Scott, E. G.: *Delaware M. J.* 29:159, 1957.

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*Adapted from Roy and others.[1]

10858-A

Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVIII MAY, 1958 No. 5

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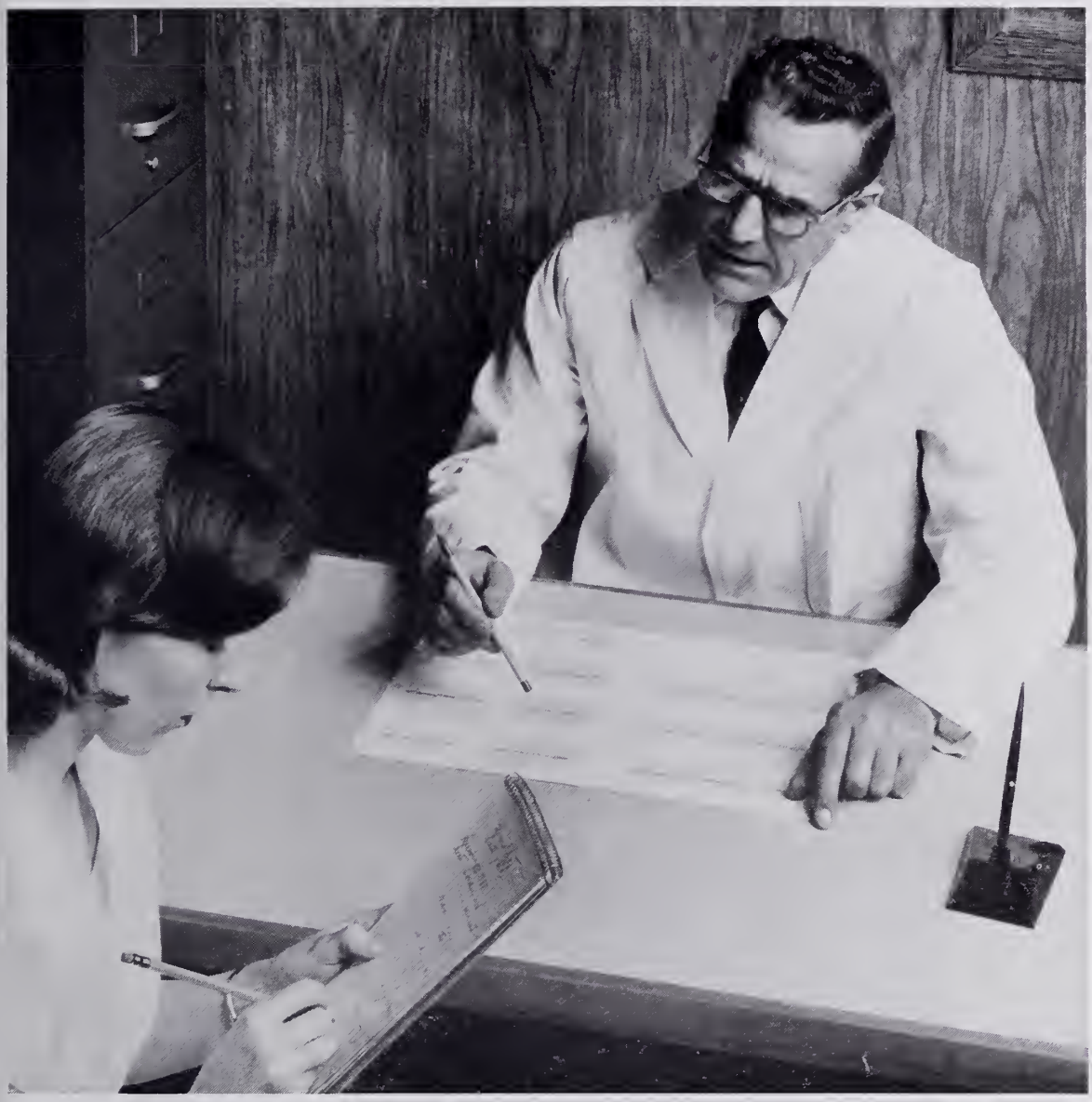
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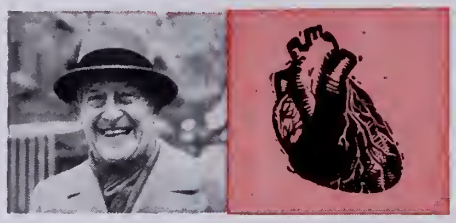
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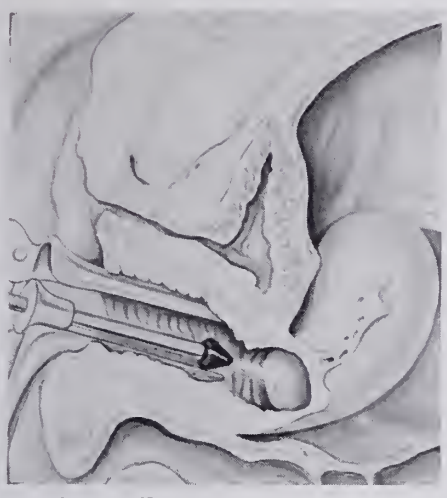
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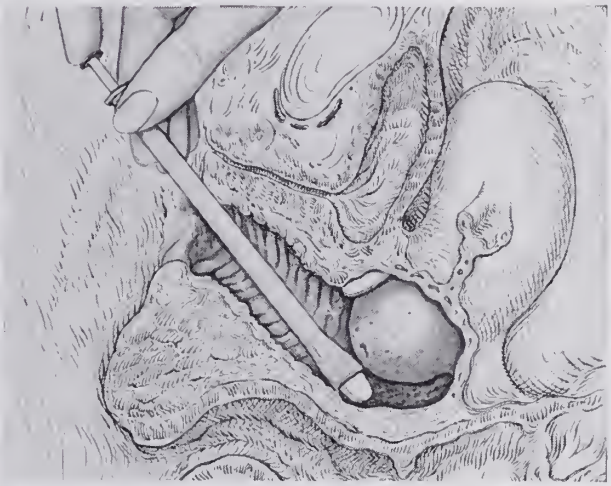
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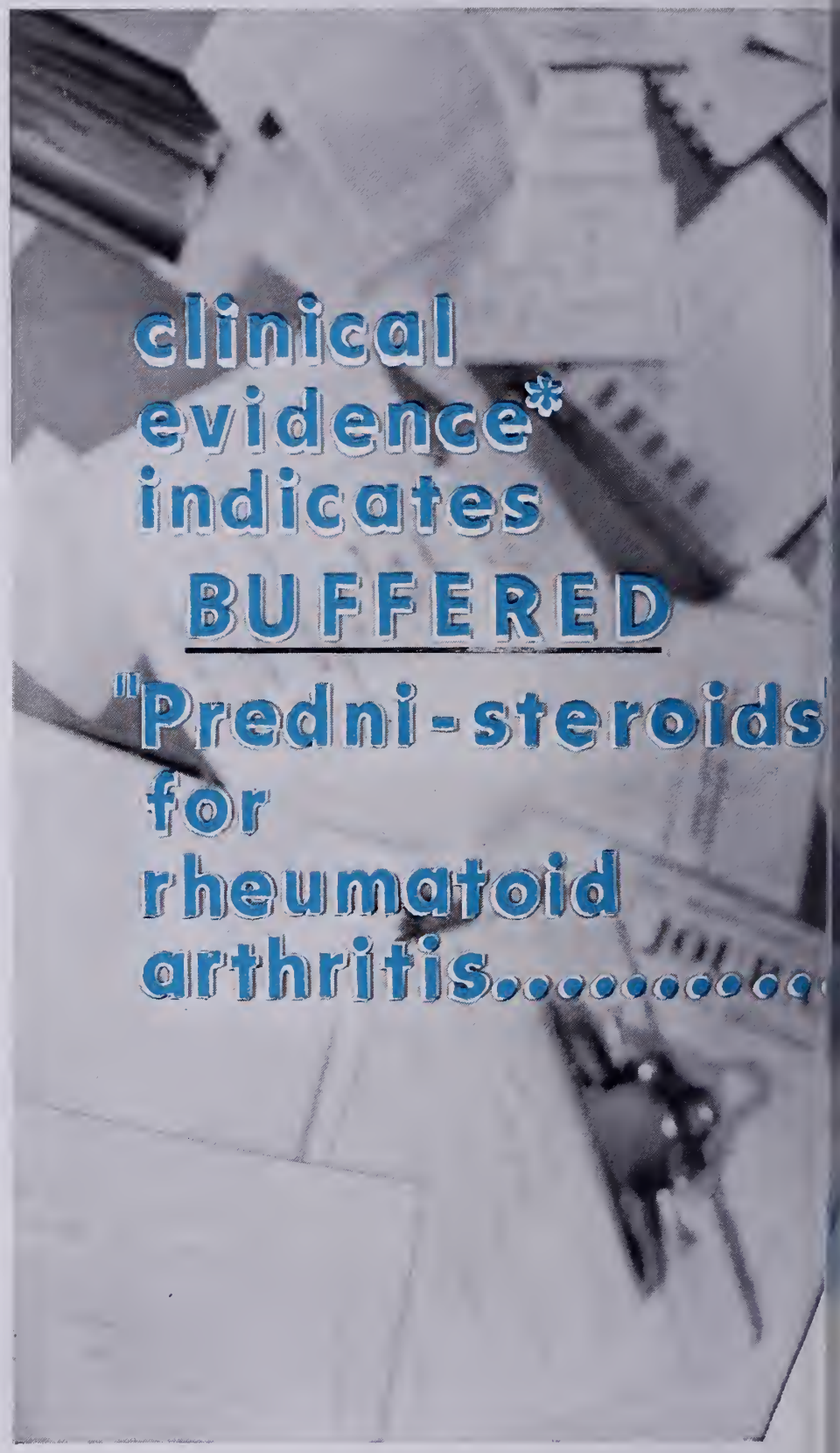
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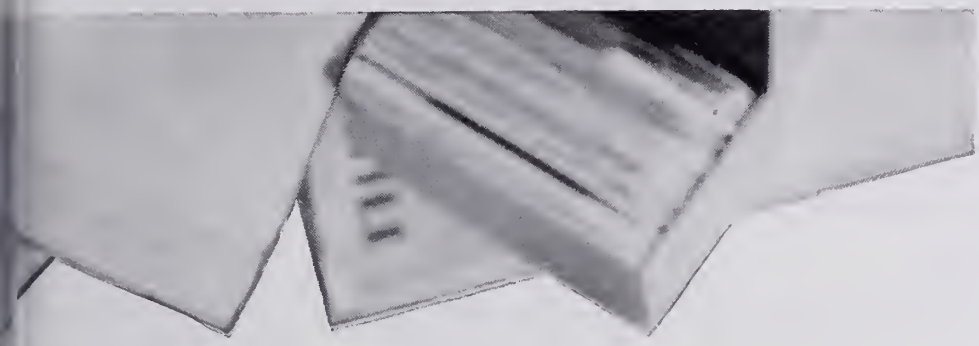
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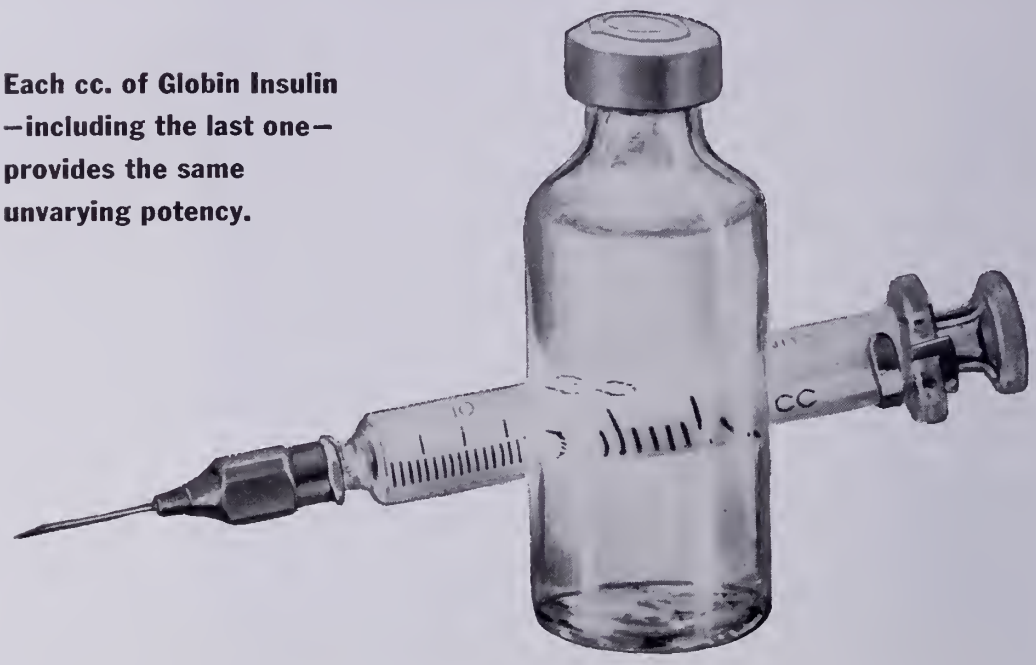


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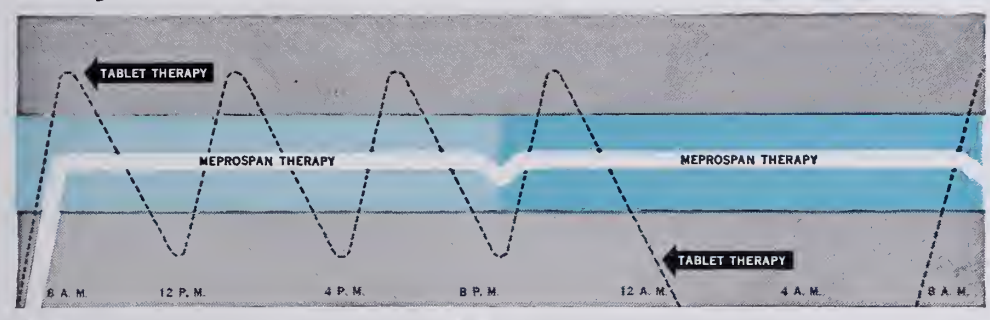
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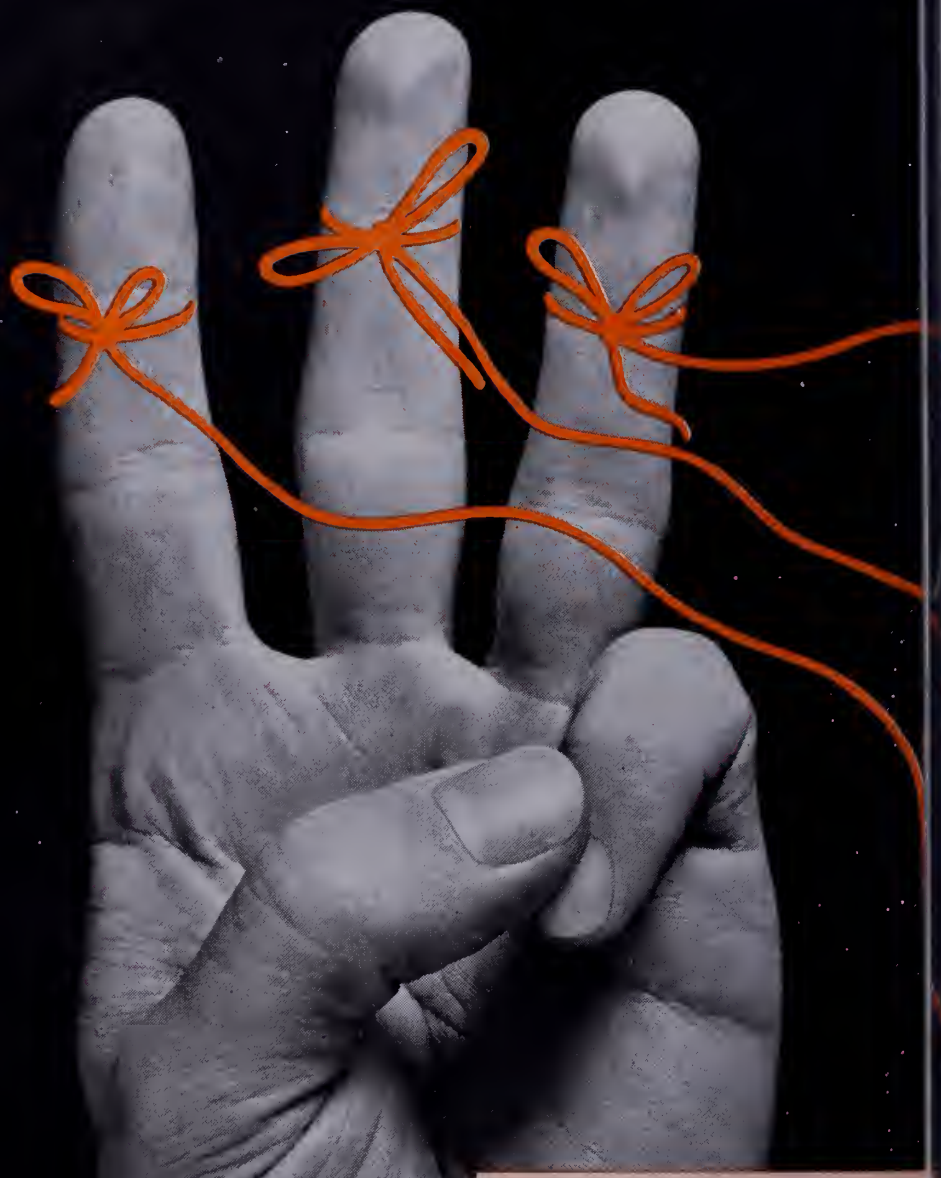
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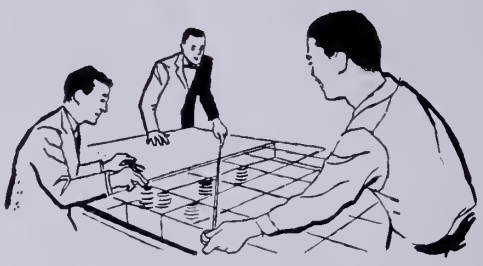
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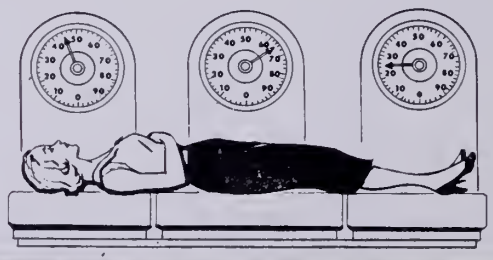
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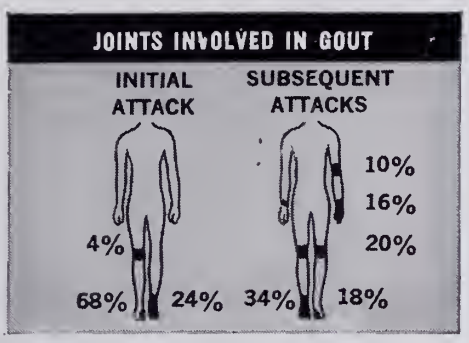
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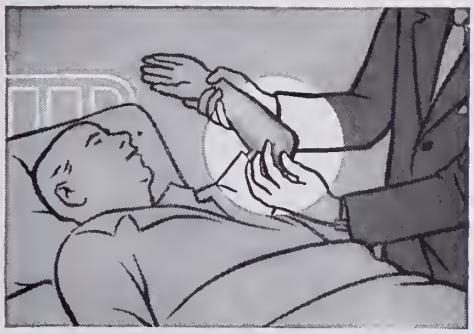


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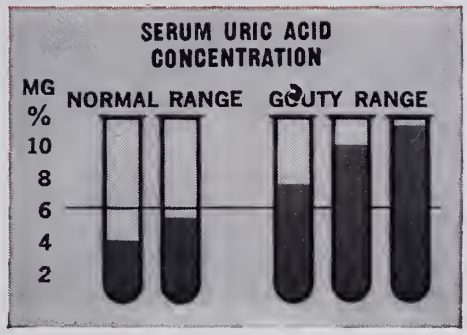
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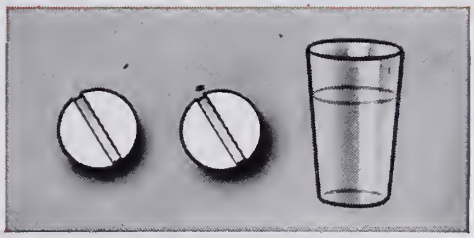
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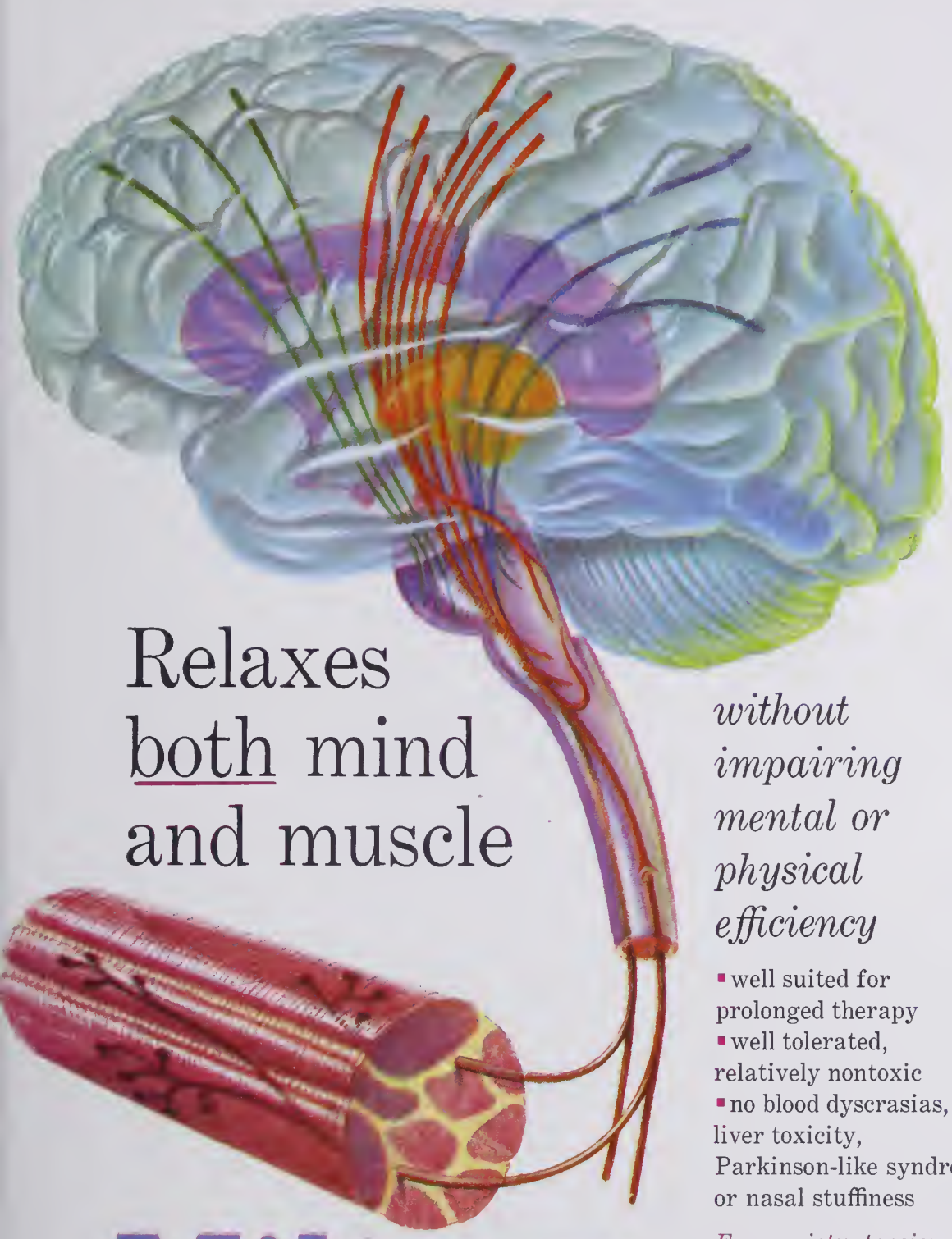
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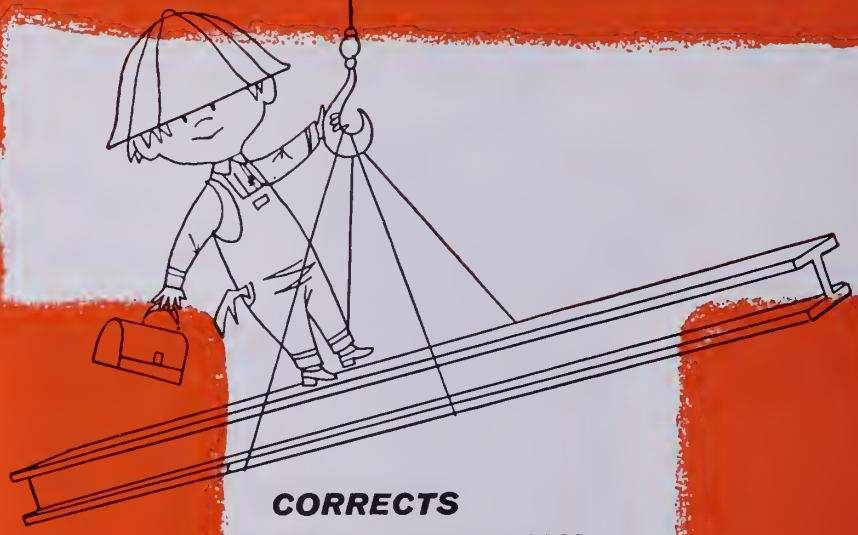
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Pablum Oatmeal is rich in Vitamin B that reduces irritability while furthering growth and repair. Natural vitamin and mineral content of oats is fortified in Pablum Oatmeal. Babies love the taste and smooth texture, too. For variety, baby can find his favorites among all five Pablum Cereals...

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PABLUM MIXED CEREAL • BARLEY CEREAL • RICE CEREAL • OATMEAL • HIGH PROTEIN CEREAL AND ASSORTED PAK

Pablum Products DIVISION OF MEAD JOHNSON & CO., EVANSVILLE, INDIANA • MANUFACTURERS OF NUTRITIONAL AND PHARMACEUTICAL PRODUCTS



Hospital practice of infant feeding

Standard formulas for WELL INFANTS

Since age, appetite and digestive capacity vary, hospital practice favors an individualized formula for each infant.

The total daily feeding usually amounts to 2 ounces of milk *per pound of body weight*, plus 1 ounce of Karo Syrup with enough water to satisfy fluid requirements.

The newborn usually takes from 2 to 3 ounces of formula per feeding; the very young infant, 4 to 5 ounces—the daily quota yielding over 50 calories for each pound the infant weighs. The quantity per feeding should not exceed 8 ounces.

Newborns are fed at 3 to 4 hour intervals throughout the 24-hour period—the 2 or 3 A.M. feeding is discontinued after the neonatal period. In the third or fourth month the 10 or 12 P.M. feeding is discontinued, once the infant fails to awaken for the bottle. Standard but individualized formulas which constitute the hospital infant feeding regimen are shown here.

WHOLE MILK FORMULAS

Age Months	Cow's Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings In 24 Hrs.	Total Calories
Birth	10	10	2	3	6	320
1	12	13	2½	4	6	390
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evap. Milk Fluid Oz.	Water Oz.	KARO Tbsp.	Each Feeding Oz.	Feedings In 24 Hrs.	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	768

ADVANTAGES OF KARO® IN INFANT FEEDING



Composition: Karo Syrup is a superior dextrin-maltose-dextrose mixture because the dextrins are nonfermentable and the maltose is rapidly transformed into dextrose which requires no digestion.

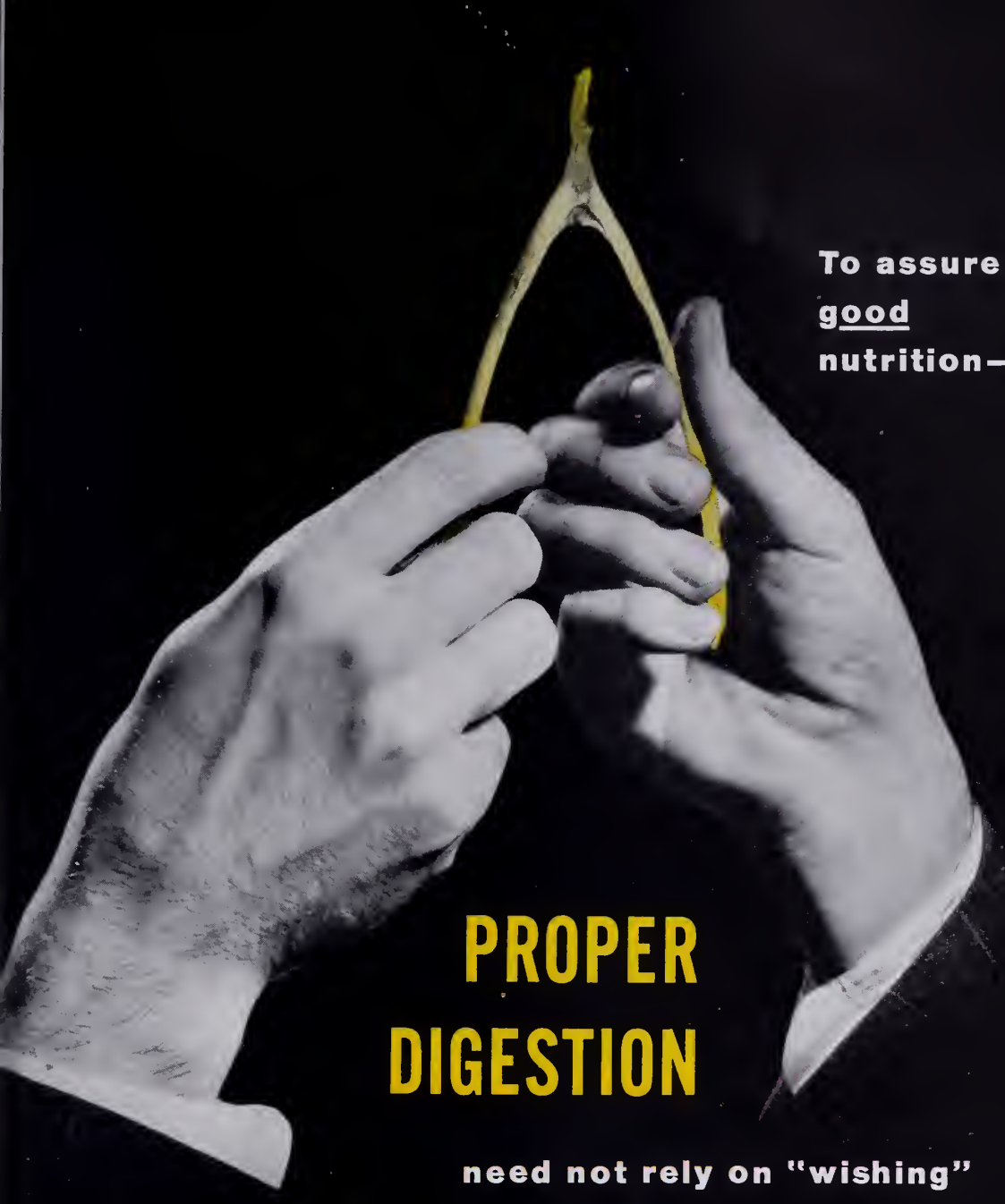
Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

Free to Physicians—Book of Infant Feeding Formulas with convenient schedule pads. Write:

Medical Division
CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N.Y.



To assure **good** nutrition—

PROPER DIGESTION

need not rely on "wishing"

Each double-layered Entozyme tablet contains:

Pepsin, N.F. ..... 250 mg.
—released in the stomach from gastric-soluble outer coating of tablet.

Pancreatin, U.S.P. ..... 300 mg.

Bile Salts ..... 150 mg.
—released in the small intestine from enteric-coated inner core.

A. H. ROBINS CO., INC.
Richmond 20, Virginia
Ethical Pharmaceuticals of Merit since 1878

As a comprehensive supplement to deficient natural secretion of digestive enzymes, particularly in older patients, ENTOZYME effectively improves nutrition by bridging the gap between adequate ingestion and proper digestion. Among patients of all ages, it has proved helpful in chronic cholecystitis, post-cholecystectomy syndrome, subtotal gastrectomy, pancreatitis, dyspepsia, food intolerance, flatulence, nausea and chronic nutritional disturbances.

For comprehensive digestive enzyme replacement—

ENTOZYME®

Robins

For Speedier Return to Normal Nutrition

Meat...

and the Medically Acceptable Reducing Diet

In any medically acceptable reducing diet prescribed today, meat can serve as an important nutritional component.

Curtailment of the daily calorie allowance must not deny the patient the protein, vitamins, and minerals required for good nutritional health. Fad diets which eliminate certain basic foods can hardly be considered medically acceptable.

Calorie for calorie, no other commonly eaten food supplies the quality and quantity of protein which lean meat provides. Its B vitamins and minerals are needed daily, regardless of calorie restrictions.

Even when coexistent pathological conditions require that the calorie-reduced diet be further limited to foods low in fiber or in sodium, meat fills the same important place in each day's food allowance. The fat content of lean meat is relatively low, and meat can be prepared in various ways, as called for by almost every special diet.

In any diet which must deviate from accustomed eating habits, the taste appeal of meat makes it easier for the patient to adhere to the restrictions imposed.

The nutritional statements made in this advertisement have been reviewed by the Council on Foods and Nutrition of the American Medical Association and found consistent with current authoritative medical opinion.

American Meat Institute
Main Office, Chicago... Members Throughout the United States



IN ALL DIARRHEAS . . . REGARDLESS OF ETIOLOGY

comprehensive control with **CREMOMYCIN**®

SULFASUXIDINE*® PECTIN-KAOLIN-NEOMYCIN SUSPENSION

SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

BROAD THERAPY . . . The combined antibacterial effectiveness of neomycin and Sulfasuxidine is concentrated in the bowel since the absorption of both agents is negligible.

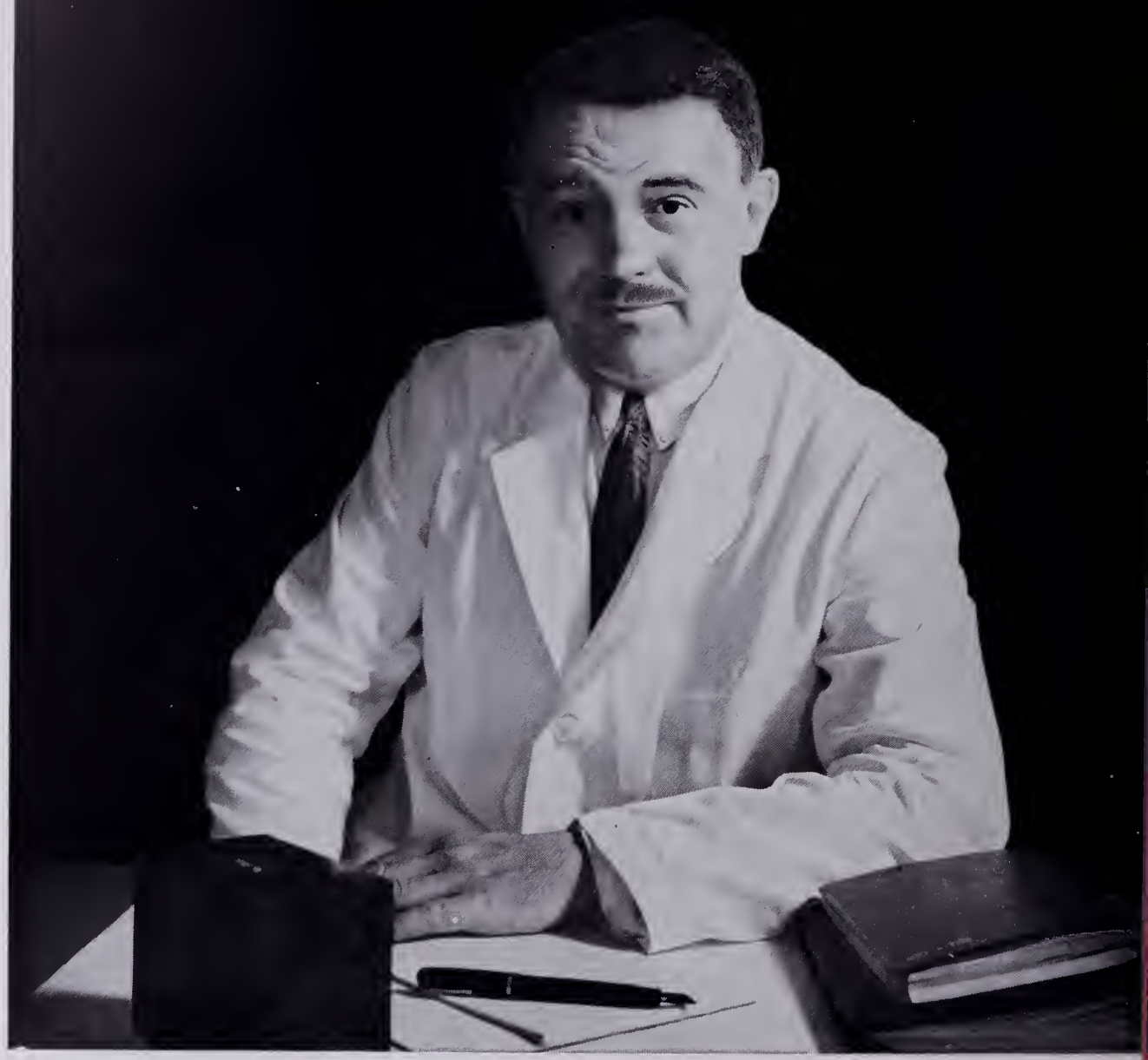
LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

PALATABLE creamy pink, fruit-flavored CREMOMYCIN is pleasant tasting, readily accepted by patients of all ages.

* Sulfasuxidine is a trade-mark of Merck & Co., Inc.

MSD MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

KEY MAN AGAINST CANCER



YOUR OFFICE, DOCTOR, is the "cancer detection center" which we urge all adults to visit once a year, and where early diagnosis of cancer can help save many thousands of lives. It is upon you that we largely rely for the carrying out of many aspects of our education, research and service programs. As members of our Boards of Directors — on the National, Division and Unit levels — it is your thinking and your guidance which are such vital factors in creating and executing our policies and programs.

You, of course, are concerned with all the ills affecting the human body. The American Cancer Society deals specifically with cancer. But our mutual concern — the tie that binds us inextricably—is the saving of human lives. Through your efforts, we may soon say—"one out of every two cancer patients is being saved." Indeed, with your help, cancer will one day no longer be a major threat

IOWA DIVISION, INC.
MASON CITY

AMERICAN CANCER SOCIETY

Relieve moderate or severe pain

Reduce fever

Alleviate the general malaise of upper respiratory infections

'TABLOID'

'EMPIRIN' COMPOUND®

WITH

CODEINE PHOSPHATE*

maximum codeine analgesia/optimum antipyretic action

*Subject to Federal Narcotic Regulations

Symbols OF PROVEN PAIN RELIEF



gr. 1



gr. ½



gr. ¼



gr. ⅛

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

Formulas for dependable relief...

...from moderate to severe pain complicated by tension, anxiety and restlessness.

'CODEMPIRAL'® NO. 3*



Codeine Phosphate . . . . . gr. ¼
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

'CODEMPIRAL'® NO. 2*



Codeine Phosphate . . . . . gr. ⅛
Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

...from pain of muscle and joint origin, simple headache, neuralgia, and the symptoms of the common cold.

'TABLOID'

'EMPIRIN' COMPOUND®



Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½
Caffeine . . . . . gr. ½

...from mild pain complicated by tension and restlessness.

'EMPIRAL'®

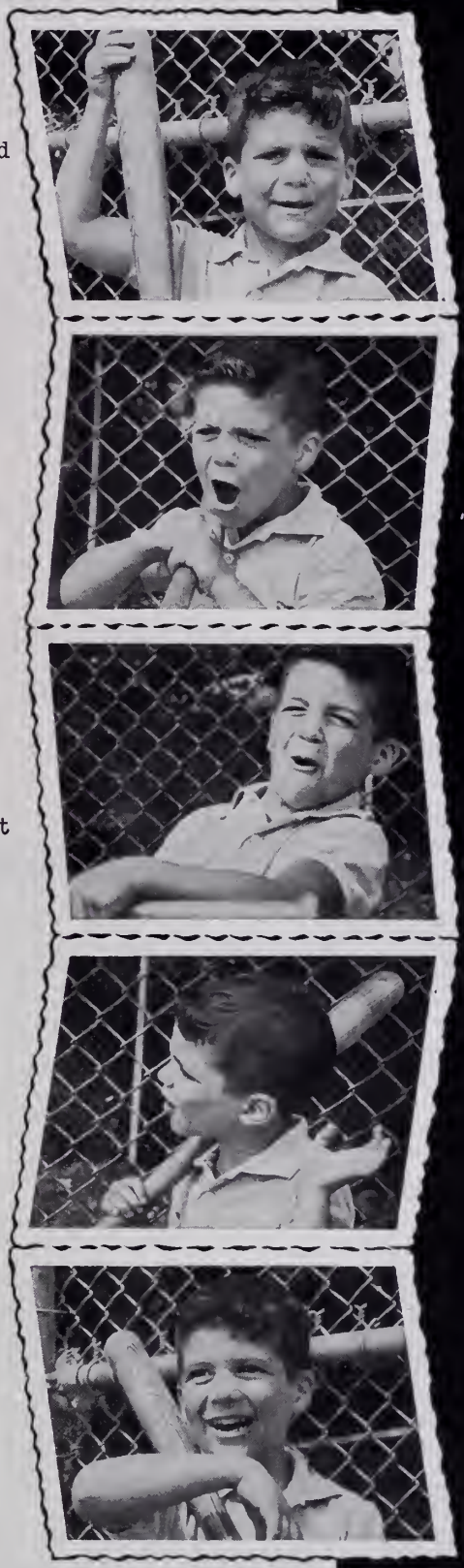


Phenobarbital . . . . . gr. ¼
Acetophenetidin . . . . . gr. 2½
Aspirin (Acetylsalicylic Acid) . . . . . gr. 3½

*Subject to Federal Narcotic Regulations

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York

MY DAD— HE HURT HIS BACK REAL BAD



"It happened at work while he was putting oil in something"

"He told Mom his shoulder felt like it was on fire"

"He couldn't swing a bat without hurting"

"But Doctor gave him some nice pills--and the pain went away fast"

"Dad said we'd play ball again tomorrow when he comes home"

AND THE PAIN WENT AWAY FAST

FOR PAIN

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) **TABLETS**

ACTS FASTER...
usually within 5-15 minutes

LASTS LONGER...
usually for 6 hours or more

MORE THOROUGH RELIEF...
permits uninterrupted sleep through the night

RARELY CONSTIPATES...
excellent for chronic or bedridden patients

and now... **NEW**

Percodan®-Demi

VERSATILE

New "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Available through all pharmacies.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

Literature? Write

Endo® **ENDO LABORATORIES**
Richmond Hill 18, New York

*U.S. Pat. 2,628,185

base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline[6] capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,[7] who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium phate, found much hig

antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetra line is rel o its ability to form comple en unavailable for he th h

"...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied..."

meta-

dum to the last mentioned paper of et al.[7] indicates that in their study the capsules of tetracycline hydrochloride, chlortetracycline hydrochloride and tetracycline phosphate complex all contained dicalcium phosphate as a filler, whereas the capsules containing citric acid and sodium hexametaphosphate did not contain any dicalcium phosphate. This could clearly explain the discrepancies noted in that study. Likewise, the inconsistencies in other studies may very well have been due to the of calcium as fillers in so thers.

is, however,

of so te were published simultaneously with the last mentioned report of Welch et al.[7] These data were based on thoroughly controlled studies h an[9] and include additional on- clusively n mer

Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958.

ACHROMYCIN*V
TETRACYCLINE HCl BUFFERED WITH CITRIC ACID
is tetracycline and citric acid

Lederle LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK
*Reg. U. S. Pat. Off.

WANTED

BY ALL DERMATOLOGISTS

A TOPICAL "METI" STEROID PREPARATION FREE FROM UNWANTED SENSITIZATION POTENTIAL



NAME **METI-DERM® CREAM 0.5%**

DESCRIPTION 5 mg. prednisolone, free alcohol, in each gram—nonstaining, water-washable base—exerts a therapeutic effect in presence of an exudate without being occlusive.

supplied: 10 Gm. tube.

Meti—T.M.—brand of corticosteroids.

Schering

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

MD-J 218

SUPPLIED

METI-DERM Cream 0.5% and Neomycin, 10 Gm. tubes.

BIBLIOGRAPHY

(1) Noojin, R. O.: South. M. J. 49:149, 162:1379, 1956. (3) Goldman, L.; Flatt, 25:75, 1955. (4) Frank, L., and Stritzler, (5) Robinson, R. C. V., and Robinson, (6) Canizares, O.; Shatin, H., and Rosenb 1955.

- approximately twice the po potency of topical hydrocor
- no edema and sodium rete
- provides METICORTELONE form, reported by dermatolo to be the most effective form steroid therapy

effective local relief of allergic (atopic) ivy dermatitis and other contact de ruritus—with new corticostero gram of water washable Me mg. of prednisolone, free alcoho METI-DERM Cream, 0.5%, 10 Gm brand of predn solone top cal ONE,® brand of predn solone

prednisolone, free alcohol, in a water-washable base.

PACKAGING: METI-DERM Cream 0.5%, 10 Gm. tube.

"METI"STEROID—PLUS A

WHEN SCRATCHING

Meti-Derm

I IN TOPICAL CREAM METI-DERM Cream ex ntiallergic action in the affected area. No systemic , edema and weight gain, have been reported wit

ON IVY AND

ATED DERMA

STRONGEST RELIEF

ti-Derm CREA

IN SKIN RASHES DUE TO INF

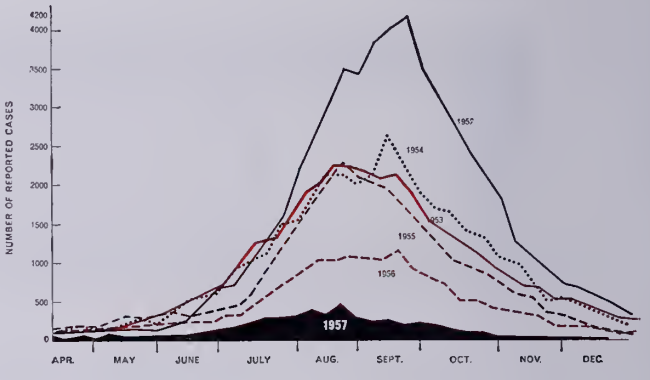
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METI-STEROID BENEFITS

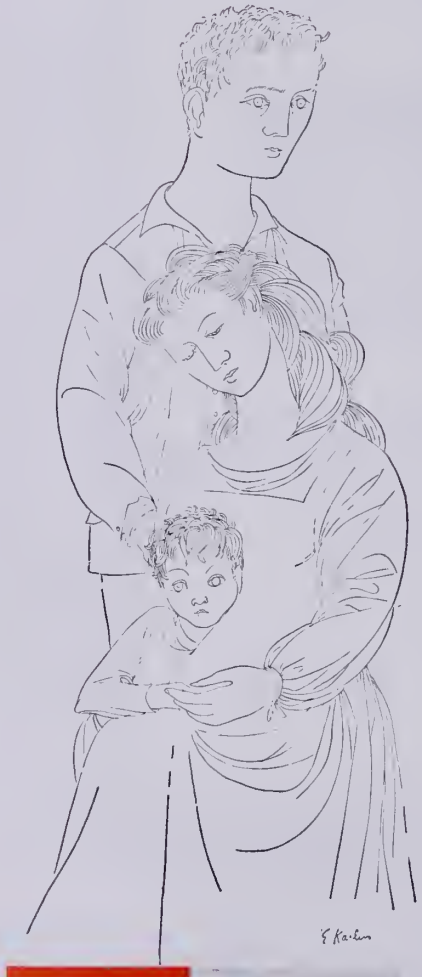
NEW Meti-Derm

A MIRACLE IN OUR TIME ?

At the last accounting,[1] physicians throughout the country had administered at least one dose of poliomyelitis vaccine to 64 million Americans—all three doses to an estimated 34 million. Undoubtedly, these inoculations have played a major part in the dramatic reduction of paralytic poliomyelitis in this country.



Incidence of polio in the United States, 1952-1957
(data compiled from U.S.P.H.S. reports)



vaccine is plentiful for the job remaining

There are still more than 45 million Americans under forty who have received no vaccine at all and many more who have taken only one or two doses.

As it was phrased in a public statement by the Department of Health, Education, and Welfare:

> *"It will be a tragedy if, simply because of public apathy, vaccine which might prevent paralysis or even death lies on the shelf unused."*[2]

Eli Lilly and Company is prepared to assist you and your local medical society to reach those individuals who still lack full protection. *For information see your Lilly representative.*

1. J. A. M. A., 165:21 *(November 23), 1957.*
2. Department of Health, Education, and Welfare: News Release, October 10, 1957.

Lilly
QUALITY RESEARCH INTEGRITY

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U. S. A.
849008

CONFIRMED THERAPEUTIC UTILITY



Pro-Banthine® "proved almost invariably effective in the relief of ulcer pain,

*in depressing gastric secretory volume and in inhibiting gastrointestinal motility."**

"Our findings were documented by an intensive and personal observation of these patients over a 2-year period in private practice, and in two large hospital clinics with close supervision and satisfactory follow-up studies."*

Among the many clinical indications for Pro-Banthine (brand of propantheline bromide), peptic ulcer is primary. During treatment, Pro-Banthine has been shown repeatedly to be a most valuable agent when used in conjunction with diet, antacids and essential psychotherapy.

Therapeutic utility and effectiveness of Pro-Banthine in the treatment of peptic ulcer are repeatedly referred to in the recent medical literature.

Pro-Banthine Dosage

The average adult oral dosage of Pro-Banthine is one tablet (15 mg.) with meals and two tablets at bedtime.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthine in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastroscopic Studies. Report of 60 Cases, Am. J. M. Sc. *232*:156 (Aug.) 1956.

SEARLE

The Month in Washington



Washington, D. C.—The recession continues to influence the course of much legislation, as Congress points toward the windup of its session. Even in the health fields, bills that promise in one way or another to alleviate unemployment appear to have priority. At the same time, federal departments are favoring construction grants to the projects that can be started without much delay.

In legislation, here are some of the developments:

1. Liberalizations in unemployment compensation and in social security are receiving constant attention on Capitol Hill. At this writing, the bill to extend the period for unemployment compensation payments is making progress. There is the possibility also that it will make participation mandatory for all employers.

Prominent among proposed changes in the social security program itself is the Forand Bill for free hospitalization and in-hospital medical care and surgery for persons entitled to social security benefits. It is being pushed by the AFL-CIO and by some liberal Democrats, and opposed by the American Medical Association and a growing group of other organizations. The opposition is convinced that the Forand Bill is unnecessary, that it would be far more costly than anticipated, and that it would point the way to a broad national medical care plan for all persons covered by social security.

2. A controversial bill that would vastly increase the money available for grants for community facilities—waste plants, hospitals, state medical schools included—is active in Congress. One proposal is to vote a billion dollars, to be lent out to communities (at about 3½ per cent interest for 50 years). The objective here, as in many other measures, is to put people to work on construction projects.

Federal agencies have evolved a number of schemes to get U. S. dollars into circulation faster, and are attempting to work out others. In each case described below, no additional appropriation is involved; money is shifted from a project that is getting a slow start to one that is about ready to begin construction. Also, all totals given represent amounts to be spent by the sponsors as well as the federal government. Here are arrangments already made:

1. In January, the Hill-Burton hospital construction program called for U. S. grants to start buildings valued at $381 million; this figure has been stepped up to $405 million by July 1.

2. Between January and July 1, the original plan was to allocate enough money to start $120 million in construction for health research plants. This has been increased to $182 million.

3. Before the recession became so prominent an issue, the plan was to grant enough U. S. money to start construction of $170 million in sewage plants. Under pressure, the total has been increased to $215 million.

In most cases, when a project is delayed and thus loses its allocation, the grant is re-scheduled for next fiscal year.

STUDY OF GERIATRIC PROBLEMS

The American Medical Association is one of the four sponsors of a new Joint Council to Improve the Health Care of the Aged. The others are American Dental Association, American Hospital Association and American Nursing Homes Association.

The council already has authorized research in a number of directions to (a) analyze the health needs of the aged, (b) appraise available health resources for them, and (c) develop the best possible health care for them, regardless of their economic status.

Effects of this united front action should be felt when Congress takes up the Forand Bill and other legislation pointed toward relief for the aged.

MEDICINE IN THE CAA

The American Medical Association is asking Congress to strengthen the Civil Aeronautics Administration's medical department so it can properly supervise fliers' physical examinations

The Iowa State Medical Society Approved Accident and Sickness Disability *'Income Replacement'* Insurance Program

THE ONLY GROUP DISABILITY INSURANCE PROGRAM ENDORSED AND SPONSORED BY THE IOWA STATE MEDICAL SOCIETY

THE BASIC AND EXTENDED COVERAGE PLANS PROVIDE

- Lifetime Accident Disability Benefits
- 7 Years non-confining Sickness Benefits
- Optional Hospital Benefits

THE PLANS PROVIDE:

1. World-wide coverage
2. Renewal provisions to age 70
3. Insures a Doctor for disability from his own profession
4. Full benefits paid regardless of other insurance
5. Substantial Dismemberment Benefits
6. Private flying covered—Basic Plan
7. No Reduction of weekly benefits to age 70

EXCLUSIVE ADMINISTRATORS

Holmes, Prouty, Murphy and May

1022 High Street **Des Moines, Iowa**

Reduction Of Premium To Members Under Age 35

effective June 1, 1958, a *substantial reduction of premium* will be given to all members of the Society under age 35

and advise on other aviation medical matters. AMA also is recommending that an office of civil air surgeon and a medical research laboratory be established within CAA.

NOTES

Congress has under consideration several plans for reorganizing the Defense Department, two of which would result in elimination of the office of Assistant Secretary for Health and Medical matters.

Progress on appropriations bills indicates more money for research at the Institutes of Health, and at least $121.2 million (the same as this year) for Hill-Burton hospital construction.

Andrew Biemiller, top legislative man for the AFL-CIO, told a recent delegation just returned from visiting Capitol Hill: "Congressmen are falling all over themselves in wanting to do something in the recession. I think we can cash in on this."

Testifying before a House appropriations subcommittee, Secretary Folsom said coverage under major medical insurance has gone up almost 20-fold in the last five years.

Medicare is working up a new claim form that will have a check list of common errors on the back; this is intended to eliminate much correspondence now necessary when the physician makes an error on the form.

CIVIL DEFENSE MEETINGS BEFORE AMA

Two medical civil defense meetings will be held in San Francisco immediately preceding the 107th Annual Meeting of the American Medical Association. On June 19-20, the Twelfth Naval District will sponsor a symposium on "Medical Problems of Modern Warfare and Civil Defense" at the U. S. Naval Radiological Defense Laboratory, and on June 21 the AMA Council on National Defense will sponsor its Sixth Annual National Medical Civil Defense Conference, at the Sheraton-Palace Hotel.

At the latter gathering, the current federal civil defense program, including the national plan for mobilization of resources (personnel, facilities and supplies) will be outlined. There will also be a discussion of the threat and impact of newer weapons and delivery systems by an outstanding military planner, and a report on the legislative program now pending before Congress for a national survival plan, by Rep. Chet Holifield (R., Calif.). During the afternoon session, the surgeons general of the Army, Navy, Air Force and Public Health Service will discuss the civil defense role and responsibilities of civilian physicians. Two other subjects which will be covered are radioactive fall-out and the feasibility of a national shelter program.

All physicians are urged to attend these two worthwhile programs.

Doctors, too,  *like "Premarin"*

The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen.

Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

Women, of course, like "Premarin," too, because it quickly relieves their symptoms and gives them a "sense of well-being."

"PREMARIN"®
conjugated estrogens (equine)

Ayerst® Ayerst Laboratories • New York 16, New York • Montreal, Canada

5841

RHEUMATOID ARTHRITIS MAY BE FAMILIAL

Rheumatoid arthritis is more likely to afflict people whose relatives have some form of rheumatic disease. Statistical evidence for this hereditary factor is presented in a special report in the most recent issue of "Patterns of Disease," a monthly publication of Parke, Davis & Company. The rheumatic diseases, it says, trouble one out of every 16 Americans.

Persons who have one or more arthritic relatives are five or six times more likely to contract such a difficulty than are those whose families contain no such members. Other forms of rheumatic diseases may also be observed in the same family. These conclusions are said to have been based upon a study of over 5,000 persons, comprising patients with rheumatoid arthritis, normal individuals and relatives of both.

Environmental factors can also play an important part in the onset of rheumatoid arthritis, "Patterns" reveals. In a study in which 144 rheumatoid arthritis patients described factors precipitating their cases, emotional and physical strain amounted to as much as 42 per cent. Exposure to dampness or cold was reported by only 16 per cent.

The disorder may strike at any time from infancy to senility, but "Patterns" emphasizes that "more than 50 per cent of patients disabled by this disease are under 45 years of age." Two of every three are women. Persons who work outdoors and who work with their hands appear to suffer more from rheumatic diseases than do those in sedentary occupations. Of men working on farms, rheumatic disease afflicts 19.5 per cent, or three times as many farmers as male factory workers and five times as many farmers as male professional and technical workers.

In the amount of disability they cause, the rheumatic diseases are second only to mental disorders. They result in a loss of about 100,000,000 working days annually, and their cost per year has been estimated to be in excess of $1,500,000.

NEW STEROID HAS VARIED USES

Clinicians throughout the country have found so many and such varied uses for a new steroid called Medrol (Upjohn), that it ranks almost as a panacea. At a meeting sponsored by the pharmaceutical manufacturer in Augusta, Michigan, on March 17-18, Dr. Lawrence C. Goldberg, of Cincinnati, reported that 70 per cent of 201 patients having one or another of 17 different skin diseases had benefited from local and/or oral administrations of it.

Dr. Rudolph Toch, of the Children's Cancer Research Foundation, Boston, said Medrol produced 10 complete and 2 partial remissions in 17 youngsters suffering from acute leukemia. It is too early, he said, to tell how long the remissions will last.

Dr. Jean A. Spencer, of the University of Chicago, told of its producing "dramatic improvement" in four of 10 cases of ulcerative colitis.

Dr. Dan M. Gordon, of Cornell, said it is a "superior" drug in the treatment of a variety of serious eye disorders.

Another clinician, Dr. W. C. Grater, of Dallas, reported satisfactory results with it in the treatment of 128 of 138 patienst with allergic disorders, and Dr. Samuel M. Feinberg, of Northwestern, recommended it especially as an anti-inflammatory agent in such conditions.

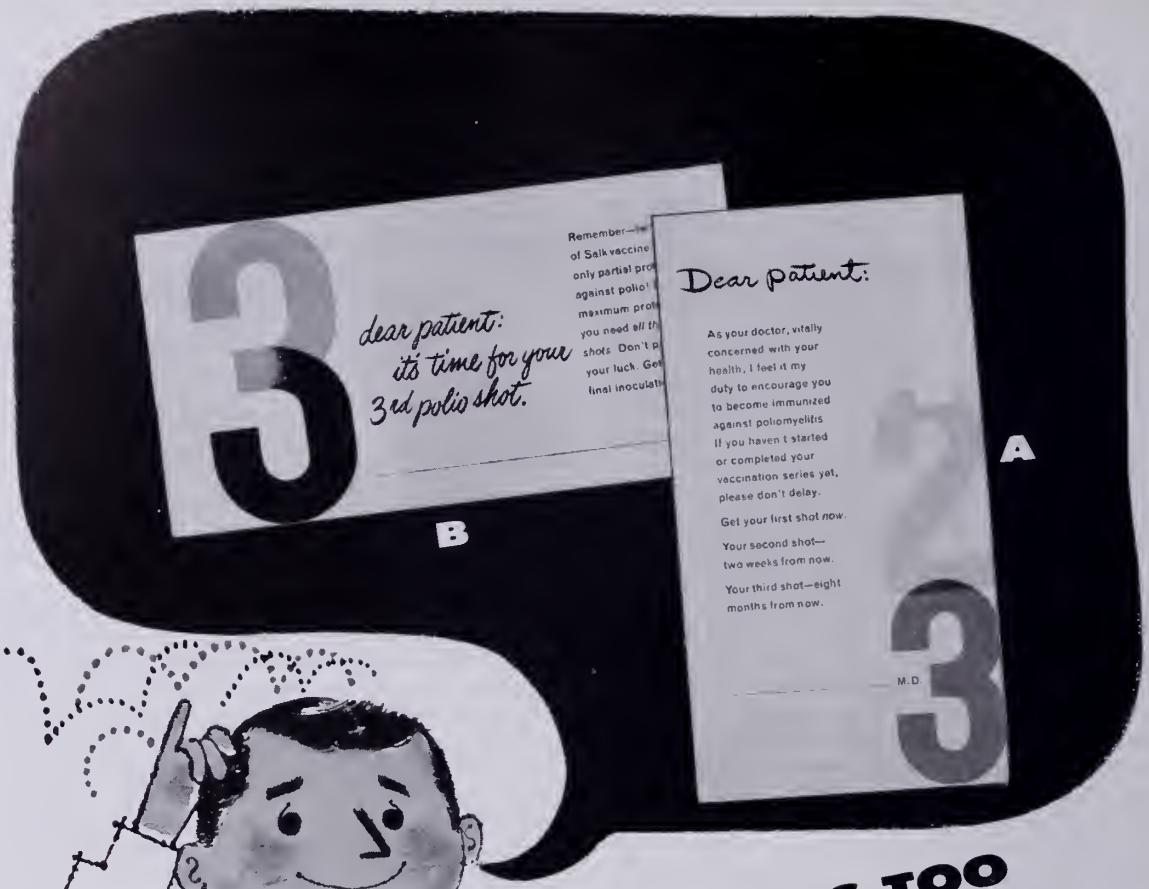
Dr. Edward Rosenberg, of Chicago, reported excellent improvement in 15 of 23 arthritic patients to whom Medrol was given orally.

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Personals



Dr. D. D. Schmitt moved his practice from Kimballton to Ringsted on April 1.

Dr. Selig M. Korson has been appointed by the State Board of Control to succeed **Dr. J. O. Cromwell**, now director of state mental hospitals, as superintendent of Mental Health Institute at Independence. Most recently, he has been a staff psychiatrist at the Veterans Administration Hospital near St. Petersburg, Florida. He was a major in the Army Medical Corps during World War II.

At the sectional meeting of the American College of Surgeons in Des Moines in March, **Dr. R. T. Tidrick,** head of surgery at the S.U.I. College of Medicine, called attention to a recent decision of the California Supreme Court holding that a patient who has been given a blood transfusion against his will can sue his doctor for assault.

At a public forum in Des Moines on March 26, sponsored by the Iowa chapter of the Arthritis and Rheumatism Foundation, the speakers included **Dr. W. D. Paul** and **Dr. Adrian Flatt**, of the S.U.I. College of Medicine, **Dr. C. H. Slocumb**, of the Mayo Clinic, **Dr. Russell L. Cecil**, of New York City, medical director of the national organization, and **General George B. Kenney,** the national president. Dr. Paul is currently president of the Iowa chapter.

Drs. A. C. Wubbena and **J. D. Brower** moved into their new clinic building at Rock Rapids in April.

Dr. Stuart C. Cullen will become professor and head of the Department of Anesthesia at the University of California Medical School, in San Francisco, on July 1. A 1933 medical graduate of the University of Wisconsin, he has been head of the S.U.I. Division of Anesthesiology since 1938, and is currently president-elect of the Association of University Anesthetists and a director of the American Board of Anesthesiology.

Dr. W. A. DeYoung, of Glenwood, was dismissed from the medical staff of the State School there, on March 13, by the new medical director, **Dr. Frank M. Jacobson,** and on March 17, **Dr. Dan**

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W. Hartman, also of Glenwood, resigned as an indication of his support for Dr. DeYoung.

Dr. DeYoung subsequently told the press he thinks too much money is being spent for administrators' salaries and too few ward attendants are being employed. It was announced that on April 18 a committee composed of representatives of the Iowa Psychological Association, the Iowa State Bar Association, the Iowa State Medical Society, the Iowa Neuropsychiatric Society and the social workers' organization would start an investigation.

Dr. C. Harlan Johnston, plant physician at the John Deere Des Moines Works and a colonel in the Air Force Reserve, was elected commander of the Iowa chapter of the Air Force Association at a meeting in Des Moines on March 18.

Dr. Dennis Kelly, Jr., an internist, has joined **Drs. Clement A. Sones** and **Maurice J. Rotkow** in practice in Des Moines. Dr. Kelly, whose father is a Des Moines pediatrician, graduated from the S.U.I. College of Medicine in 1951, and did his internship and a 2½-year residency at the New York University-Bellevue Medical Center immediately thereafter. Then, for two years he served in the Air Force at an installation in Orlando, Florida, and next he took a year's residency in medicine at the VA Hospital in New Orleans. He did part-time teaching both at Bellevue and at the Tulane University Medical School.

The city council at Sioux City has appointed **Dr. A. W. Horst** as its health officer, succeeding **Dr. Charles P. McHugh**, who retired recently. Under a new arrangement, the position will be a part-time one. Dr. Horst has practiced in Sioux City for about four years.

At a public forum in Tama on March 16, **Dr. Robert C. Hickey, Dr. Rubin H. Flocks, Dr. H. B. Elkins** and **Dr. Wm. B. Goddard**, of S.U.I., joined **Dr. A. J. Wentzein** and **Dr. A. J. Havlik**, of Tama, and the **Drs. C. W. Maplethorpe**, of Toledo, in a discussion of cancer. Though the death rate from cancer for Iowa as a whole is 159.5 per 100,000, there were 40 cancer deaths among Tama County's 21,688 people, or 190 per 100,000 last year, giving Tama the highest rate in the state. There is no known reason for that phenomenon.

At the meeting of the Iowa-Illinois Central District Medical Association in Davenport on March 19, **Dean Norman B. Nelson**, of the S.U.I. College of Medicine, spoke on "A Modern Medical School and Its Relation to the Medical Profession."



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Dr. and Mrs. Jay E. Houlahan, of Mason City, left on March 19 for a trip through Europe. Dr. Houlihan plans to attend the meeting of the International College of Surgeons in Brussels, May 19-21.

In mid-March, **Dr. Daniel J. Glomset,** a Life Member of the Iowa State Medical Society, moved back from Santa Barbara to Des Moines, with **Mrs. Glomset,** and it living at the Commodore Hotel.

Dr. Chester I. Miller, director of student health at S.U.I. read a formal paper at the annual meeting of the North Central Section of the American College Health Association, which took place in Des Moines on April 10-11. **Dr. Robert A. Wilcox,** the assistant director of the Student Health Service there was a panel speaker.

Dr. E. F. Van Epps, head of the Department of Radiology at the S.U.I. College of Medicine, was the guest speaker at the "Bosses' Night" program of the Linn County Medical Assistants at the Roosevelt Hotel in Cedar Rapids on April 10.

Dr. M. F. Kiesau, of Postville, will shortly receive a 10-year service award from the Selective Service System for his work with the Allamakee County draft board.

Dr. Louis T. Palumbo, head of surgery at the Des Moines VA Hospital, addressed the recent Los Angeles meeting of the International College of Surgeons on "Several Phases of a New Surgical Procedure for Upper Dorsal Sympathectomy, With Special Reference to Angina Pectoris," and on "Ulcerative Colitis and Familial Polyposis; One-Stage Colectomy." Shortly afterward, he displayed an exhibit on ulcerative colitis and familial polyposis at the AAGP's Annual Scientific Assembly, in Dallas.

At the April meeting of the State Board of Regents, a number of gifts and grants were accepted for the S.U.I. College of Medicine. Smith, Kline and French Laboratories gave $2,260 for a three-year fellowship in pharmacology. **Mrs. Beulah G. McClintock** and **Dr. and Mrs. John C. McClintock,** all of Albany, gave $1,000 to support the medical school lectureship named for the late **Dr. John C. McClintock,** who for many years was head of the S.U.I. Department of Physiology. The Wyeth Laboratories division of American Home Products Co. gave $650 toward the purchase of a Bennett Respiratory Meter, an adjunct in the administration of anesthesia.

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July 7-19, 1958 October 13-25, 1958

The United States Section of the International College of Surgeons will again offer its Annual Postgraduate Course, in cooperation with the Cook County Graduate School of Medicine. It will be a two-week intensive review course in General Surgery presented at the Graduate School, and in the wards and operating rooms of Cook County Hospital. Because the course has been oversubscribed in previous years, it will be offered twice in 1958.

The program will be offered under the supervision of the Hospital's Surgical Staff. It will include illustrated lectures, motion pictures, anatomy demonstrations, operative clinics and practice surgery by the participants on anesthetized dogs. Consideration will be given not only to surgical technic, surgical complications and management of the surgical patient, but also to an intensive review of the basic sciences in relation to clinical surgery. In addition to twenty hours of surgical anatomy on the cadaver, the program will include lectures and demonstrations on various aspects of general surgery.

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American Fund for Medical Education. This last gift is not to be confused with the contribution ($43,080) from the National Fund for Medical Education which was reported in the April issue of the JOURNAL. AMEF collects funds from doctors and their wives; NFME collects money from businessmen and corporations.

Dr. Reinert N. Svendsen, of Keokuk, gave $50 to the Ophthalmic Gift Fund, which is used to finance research in ophthalmology.

Drs. C. R. and C. W. Rominger moved into their new office building in Waukon on April 1.

Drs. E. B. Grossmann and **Alexander Bushmer** have purchased land on which they propose to build a clinic building in Orange City this summer. Besides providing facilities for them, the one-story structure will contain a suite for a third physician.

Dr. R. B. May, acting director of professional services at the Knoxville VA Hospital, spoke on "Problems of TB Control in the Mentally Ill" at the annual meeting of the Wapello County TB & Health Association at the Sunnyslope Sanatorium, in Ottumwa on March 25.

Dr. James R. Mincks, a diplomate of the American Board of Surgery, will join the staff of the Gilfillan Clinic, in Bloomfield on May 1. He took his M.D. at Western Reserve University, and served both an internship and a residency there before entering the Army Medical Corps in 1953. His coming to Bloomfield raises the medical personnel of the Gilfillan group to 10.

More than 700 people, including physicians from Paullina, Holstein, Cherokee, Storm Lake and Alta, attended open house at **Dr. Richard Berge's** new medical building in Aurelia on March 29.

Dr. Adrian E. Flatt, an assistant professor of orthopedic surgery at S.U.I., has been elected to membership in the American Society for Surgery of the Hand. Dr. Flatt is an Englishman who joined the S.U.I. faculty in July, 1956.

Dr. Jack Spevak has returned to Des Moines after studying hematology in Detroit, and has associated himself in the practice of pediatrics with **Dr. John Gustafson,** with offices in the Equitable Building.

Dr. Robert H. Foss, formerly of Green Bay, Wis-



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Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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consin, has taken over the ophthalmologic practice of the late **Dr. John Matheson,** in Des Moines. He received his M.D. degree at S.U.I. in 1940, took his residency there, served four years in the Air Force, and practiced in Clinton for seven years.

In July, **Dr. Richard E. Sparks,** a 1957 graduate of the S.U.I. College of Medicine, will open a practice in Lynnville. He is now finishing his internship at a hospital in Saginaw, Michigan.

Dr. Walter L. Bierring, of Des Moines, has been invited to address the Eighth Middle East Medical Assembly, in Beirut, Lebanon, this summer. While he is there, he will install a chapter of Alpha Omega Alpha at the American University in Beirut. He has been national president of that fraternity since 1924.

Dr. Lee R. Martin, of Council Bluffs, attended a meeting of **President Eisenhower's** Traffic Safety Committee, in Chicago on April 1-2.

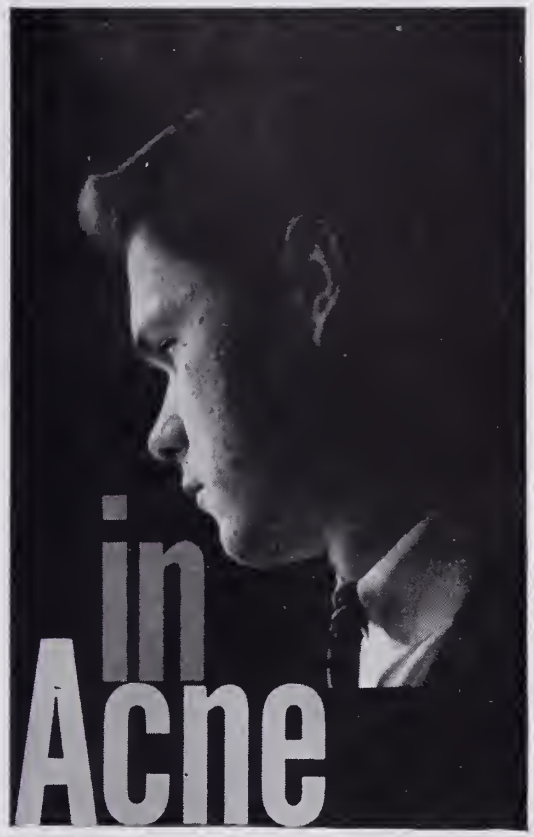
The members of the Henry County Medical Society have found it necessary to petition the city council at Mt. Pleasant to postpone indefinitely the discontinuation of regular garbage collections. The Nurses Association there sent a similar petition.

At the Boone-Story Society's meeting on March 27 in Madrid, the principal speaker was **Dr. Woodrow Read,** of Iowa State College, a clinical psychologist.

Dr. Ruth Wolcott, of Spirit Lake, was hospitalized for examination at Sioux City on March 16, and on March 19 was taken to University Hospitals, Iowa City, for further tests and possible surgery.

At the regional postgraduate conference sponsored by the Iowa State Medical Society and the Webster County Medical Society in Fort Dodge on March 27, the speakers included **Dr. T. A. Burcham, Jr.,** a radiologist, and **Dr. C. H. Gutenkauf,** an internist, both of Des Moines, **Dr. T. C. Chisholm,** a University of Minnesota surgeon, **Dr. J. H. Randall,** an S.U.I. obstetrician and gynecologist, and **Dr. H. W. Morgan,** a Mason City radiologist. **Dr. Charles J. Baker,** of Fort Dodge, acted as moderator. Fifty-two doctors attended the meeting.

Dr. L. E. Hooper, of Indianola, who will complete his fiftieth year of practice in Warren Coun-



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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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ty this spring, was given the Simpson College Achievement Award on March 25. A plaque is presented annually "to give recognition and appreciation to the person who has given outstanding leadership and service to the civic betterment of the Indianola community."

Dr. Frank Myers, who is now completing his internship at Alameda County Hospital, in California, will join **Drs. Kermit W. Myers, Carl E. Vorhes** and **Robert E. Griffin** in practice at Sheldon on about July 15.

Dr. A. W. Kilness, who began practice at Eldon about a year ago, went to Jefferson City, Missouri, on April 15, to take over the practice of a physician who recently was disabled by a heart attack and forced to retire.

Dr. Rachmiel Levine, chairman of the Department of Medicine at Michael Reese Hospital, Chicago, will present a paper entitled "Management of Fluid and Electrolyte Balance in Postoperative Patients" at a meeting of the Scott County Medical Society at the Outing Club in Davenport on Tuesday, May 6. The meeting will begin at 7:00 p.m., and doctors from the surrounding area are cordially invited to attend.

At 6:30 p.m. on May 13, the Cerro Gordo County Medical Society will meet at the Hanford Hotel, in Mason City, together with the dentists, pharmacists and veterinarians of the county, to hear **Dr. Franklin H. Top**, head of the Department of Preventive Medicine and Public Health at S.U.I. speak on "Diseases Common to Animals and Man."

At the April 16 joint meeting of the Polk County Medical Society and the Polk County Bar Association, **Dean Norman B. Nelson**, of the S.U.I. College of Medicine was the guest speaker. The meeting was held at the Savery Hotel, in Des Moines.

Dr. Kenneth H. McKay, who has been a fellow in surgery at the Mayo Foundation since 1954, has opened a practice in Muscatine.

Dr. John A. Gius, of the S.U.I. College of Medicine, addressed the Des Moines County Medical Society on April 8, on the subject "Making the Patient Safe for Surgery."

At the request of **Dr. James F. Speers**, director of the Des Moines-Polk County Health Department, **Dr. M. F. Armaly**, of the S.U.I. Department

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of Ophthalmology, has been conducting a glaucoma casefinding program at the Argonne Armory, in Des Moines. Among 300 volunteers, all of whom said they thought nothing was wrong with their eyes, Dr. Armaly found symptoms suggestive of glaucoma in at least 85, or nearly 30 per cent. "Even if we cut this suspected figure in half, it will give us a 15 per cent figure, almost twice as high as what we previously thought was the normal percentage," he declared.

His findings accord with those which **Drs. Horsley, Lewis** and **Packer,** of Memphis, reported in the April 15 issue of J.A.M.A. On the basis of their estimate that "one million persons over 40 in the U. S. have unrecognized glaucoma," they recommended that a tonometric test be made routine in physical examinations of all persons in that age group.

Dr. Robert C. Hardin, a professor of internal medicine at S.U.I., has been reappointed Iowa governor for the American Diabetes Association for a period of three years.

Dr. Allan B. Phillips, of Des Moines, has been notified that the Iowa Methodist Hospital School of X-ray Technology, of which he has charge, has been approved by the Council on Medical Education and Hospitals of the American College of Radiology.

Dr. Richard Paul, of Des Moines, has returned tanned and relaxed after serving as an official surgeon during the Sebring International Sports Car Race, held at Sebring, Florida, in mid-March.

On March 21, **Dr. Tom B. Throckmorton,** a Des Moines psychiatrist, was inducted into alumni membership in Alpha Omega Alpha at his *alma mater,* Jefferson Medical College. His son, **Dr. Tom D. Throckmorton,** a Des Moines surgeon and a member of the fraternity, accompanied him.

At a public health forum in KRNT Theatre, Des Moines, on April 23, the topic was "Why Youth Explodes," and the speakers included **Dr. Edward M. Litin,** a Mayo Clinic psychiatrist; **Dr. Thaddeus P. Krush,** clinical director of the Community Service Division of the University of Nebraska; and **Dr. M. E. Alberts,** a pediatrician; **Dr. Stewart O. Olson,** a generalist; and **Dr. Sydney L. Sands,** a psychiatrist, all of Des Moines. **Dr. H. C. Merillat,** a Des Moines psychiatrist, was moderator.

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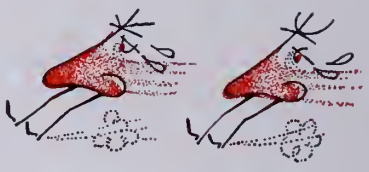
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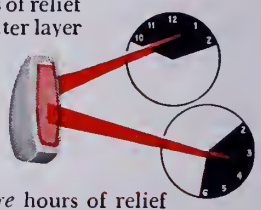
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DEATHS

Dr. Joseph Abel St. Onge, 76, who practiced for 51 years in Sioux City, died at his home there on March 16.

Dr. John H. Matheson, 53, a Des Moines EENT specialist, died at Iowa Methodist Hospital on March 12. He had suffered a stroke at his office on the preceding day.

Dr. Valentine Theodore Doering, 77, of Fort Madison, who had been in failing health for the last three years, died on April 1 at the St. Joseph Hill Infirmary, in St. Louis.

Dr. Charles LeRoy Seaman, 50, who had practiced in Cherokee for 12 years, and for five years prior to World War II practiced at Mt. Ayr, died at his home on April 5, following a heart attack.

Dr. Florence D. Johnston, 65, who practiced anesthesiology at Cedar Rapids for many years, died in a hospital there on April 5.

Dr. Ben H. Chamberlain, 77, who practiced at Wyoming, Iowa, for about 21 years before moving to California in 1924, died in a hospital at Alhambra, California, on March 23.

Dr. Robert Thompson Spain, 83, who practiced at Conrad for more than 50 years, died on April 1 after several years of poor health.

Dr. Frank N. Schroeder, 80, of Ryan, died on March 24 at Mercy Hospital in Cedar Rapids. He practiced at Holy Cross from 1908 until 1934, before moving to Ryan.

Dr. William Lincoln Whitmire, 93, who practiced at Sumner for more than 60 years before his retirement in 1954, died there on March 25. He was a Life Member of the Iowa State Medical Society.

AMA GOLF TOURNAMENT

The American Medical Golfing Association will hold its annual tournament in conjunction with the AMA Annual Meeting in San Francisco. The site will be the beautiful Olympic Lakeside Golf and Country Club. On June 23, doctors can anticipate a whole day of rest and relaxation, with golf, luncheon, banquet and a prize for everyone. Tee off at any time between 8:00 a.m. and 2:00 p.m. Handicaps: scratch to 30, in flights. For further information, write to Dr. James J. Leary, secretary, 450 Sutter Street, San Francisco.

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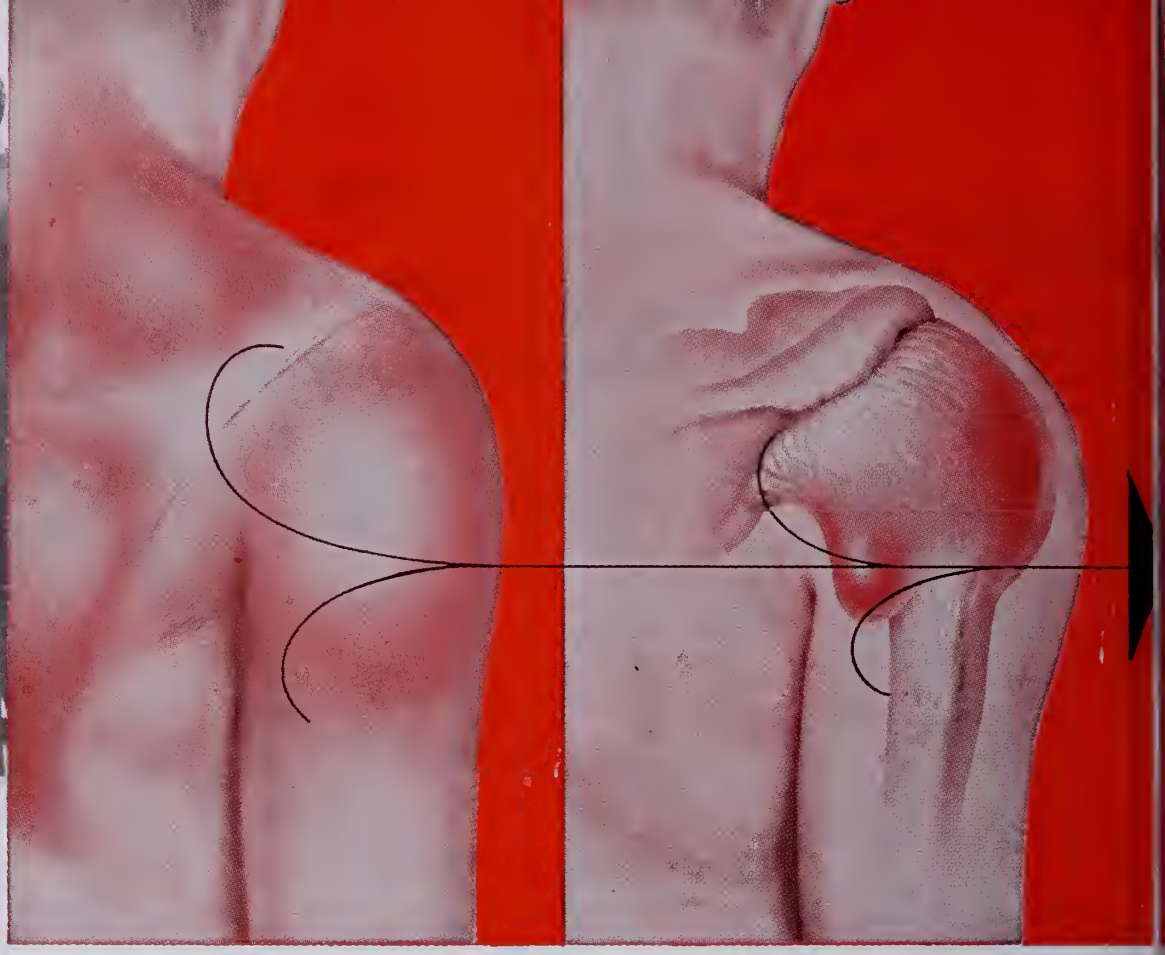
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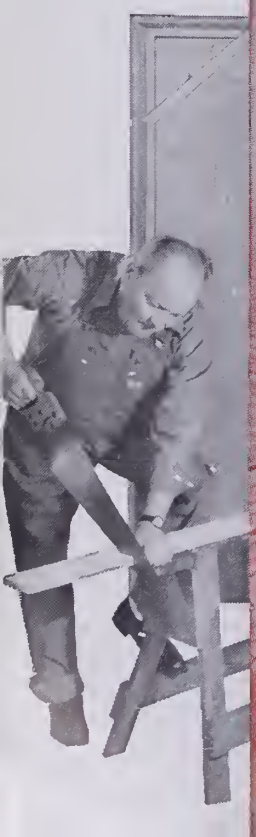
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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

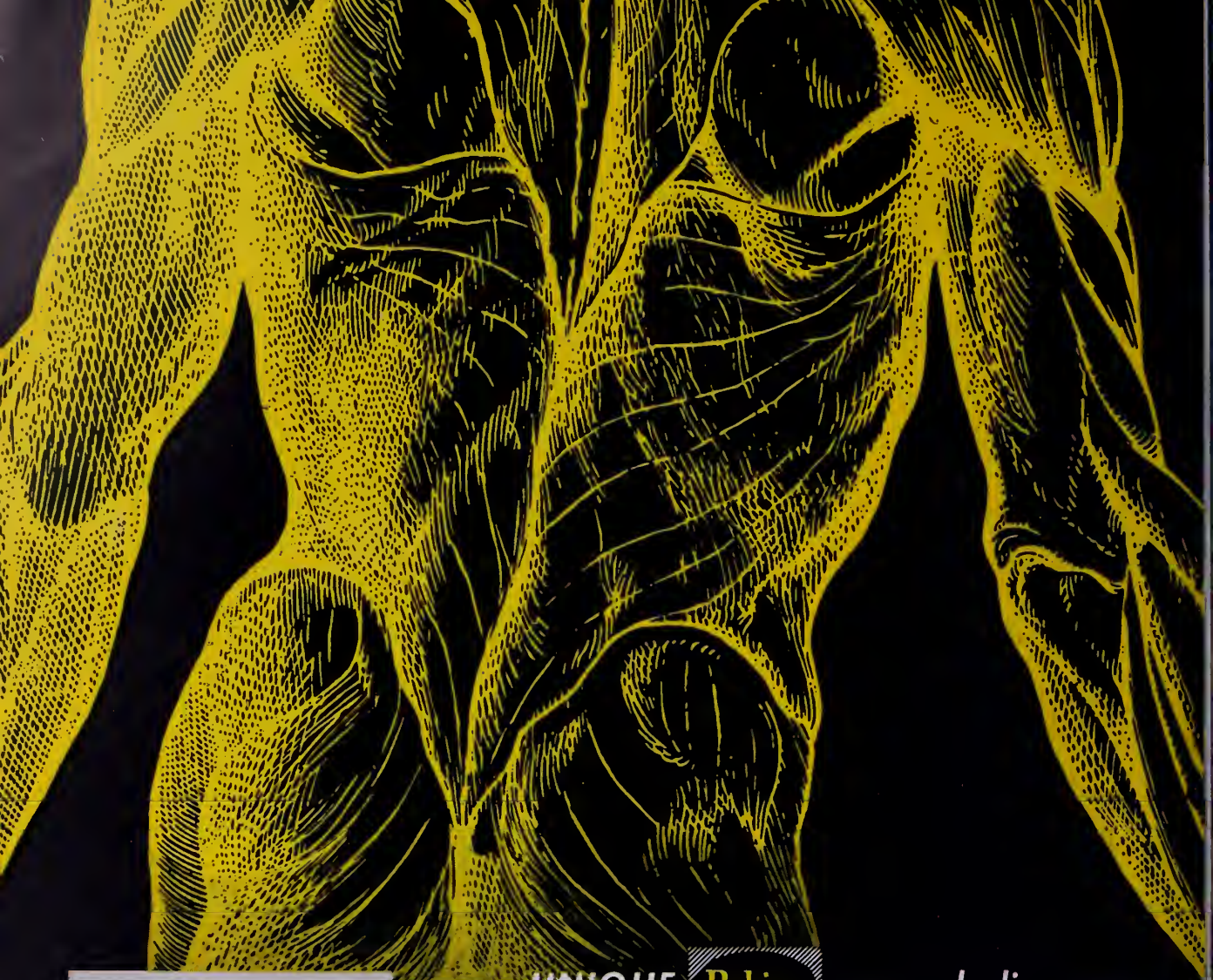
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MEMORIAL TO DR. JAMES A. DOWNING

More than 100 persons attended the dedication, on April 14, of the Dr. James A. Downing Memorial Room at Raymond Blank Hospital for Children, in Des Moines. The room, which will be used as an eye, ear, nose and throat examination and treatment center, was equipped by the Raymond Blank Guild from funds contributed in memory of the late Dr. Downing.

Dr. Charlotte Fisk, a member of the Hospital's pediatric staff, and Dr. Lee Forrest Hill, chief pediatrician, made the presentation, and Mr. Donald W. Cortes, the administrator, accepted the gift on behalf of the Hospital.

Dr. Downing began his medical service as one of the early internes at Iowa Methodist Hospital, of which Raymond Blank is now a part, and subsequently was on the staff 46 years, until his death in December, 1956. He was on the teaching staff there, and was chief of the Department of Otolaryngology from the time of its creation.

A bronze memorial plaque and a portrait of Dr. Downing—the latter a gift of the Blank Hospital nursing staff—identify the room, and the equipment includes an examining light, a larygoscope, an otoscope, an instrument cabinet, a treatment stand two adjustable stools, an optometer and a dental supply unit. In addition, Mr. Joseph Whylie, a Des Moines optician, donated eye-examination equipment including a chart projector and charts, a wall screen, a giantscope and a set of trial lenses.

Among the guests were Dr. Downing's son, Dr. Arthur H. Downing, a Des Moines ophthalmologist, and his widow, a charter member of the Guild.

SHORT COURSE ON SHIPBOARD

The University of Southern California School of Medicine invites advance registrations for a postgraduate refresher course which it is to offer in Hawaii and on board the *S.S. Matsonia* from August 5 to 21. Classes will take up the mornings from 9:00 until noon. Afternoons, evenings and weekends will be free.

In order that each physician may have an opportunity to choose the subjects which will be of most value to him, several programs will be offered simultaneously. In addition to lectures and case presentations, workshops in EKG interpretation, orthopedics, water and electrolyte balance, and liver disease will be held.

Prices, in addition to $125 tuition, range from $382.15 to $657.25, and include air passage outbound. Further information can be secured from the Postgraduate Division, USC School of Medicine, 2025 Zonal Avenue, Los Angeles 33.



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AAPS ESSAY CONTEST

The essay contest for high school students which is one of the major projects of the American Association of Physicians and Surgeons was jointly sponsored this year by doctors and their wives in a very considerable number of counties throughout the state. The Auxiliaries did the promotion work, and the medical societies provided the judges and in many instances furnished prize money. It is especially noteworthy that there were a very great many contestants. The cooperation of high school English teachers was secured, and in many places the members of entire high school classes did research and wrote papers on one or the other of the topics as a required assignment.

Thirty-two essays survived the county eliminations and were received at the state level. The winners, all of whom had chosen the topic "The Advantages of Private Medical Care," were Norman Oberstein, 307 North Tenth Street, Oskaloosa, first place; Joy Cassill, 142 South Ferry Street, Oskaloosa, second place; and Edward Parkinson, 1648 Eleventh Avenue North, Fort Dodge, third place. The first two winners of honorable mention at the state level wrote on the topic "The Advantages of the American Free Enterprise System." They are Judith Hart, R.F.D. 2, Ottumwa; and Donna Allendorf, 520 Livingston Avenue, East Dubuque, Illinois. The third honorable mention winner, Mary Schmidt, of Denver, Iowa, wrote on "The Advantages of Private Medical Care." The judges at the state level were E. M. George, M.D., editor of the JOURNAL, H. H. Vox, Ph.D., professor of foreign languages at Drake University, and Mr. Gilbert Cranberg, editorial writer for the DES MOINES REGISTER & TRIBUNE. The cash prizes in the state contest were $100, $75 and $50.

The three winning essays were forwarded to AAPS Freedom Programs, Inc., of Chicago, which conducts the national contest.

POSTGRADUATE COURSES AT DENVER

The Office of Postgraduate Education of the University of Colorado Medical Center, in Denver, has announced six short courses for the coming spring and summer.

The course in Clinical Physical Medicine, May 5-7, will be limited to physicians. Physical therapists will be instructed on the three following days. Basic therapeutic mechanisms of physical agents and technics will be presented to general practitioners and specialists by members of the Colorado faculty and by Dr. Miland E. Knapp, of the University of Minnesota and the Elizabeth Kenney Institute; Dr. Edward W. Lowman, of NYU-Bellevue; Dr. Walter J. Treanor, of Stanford; and Dr. Khalil G. Wakim, of the Mayo Clinic.

The course in Clinical Hematology for Internists



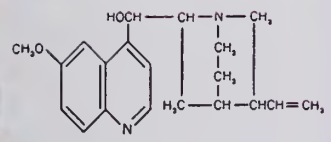
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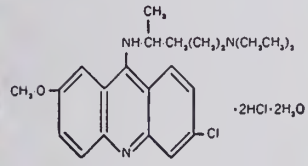
". . . Plaquenil is decidedly less toxic and better tolerated by the average patient, even in high dosage, than is chloroquine."[2]

". . . the least toxic of its class . . ."[3]

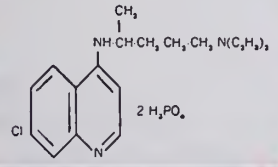
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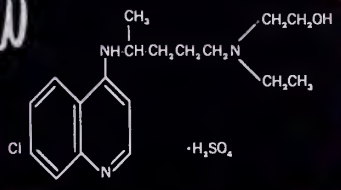
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1. A. L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
2. G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
3. Theodore: Arch. Dermat. 73:572, June, 1956.

Atabrine (brand of quinacrine), Aralen (brand of chloroquine), and Plaquenil (brand of hydroxychloroquine),

and Pathologists, to be presented on June 16-21, will be limited to 12 students.

The refresher course in Dermatology for general practitioners, on July 10-12 is being given under the joint sponsorship of the University of Colorado and the Fitzsimons Army Hospital. Emphasis will be placed upon practical management which can be carried out in the home, office or hospital. A short formulary of practical value will be distributed to the registrants.

A course in ophthalmology will be offered on July 21-24, and the Seventh Annual Western Cardiac Conference will take place on August 11-16.

At the postgraduate course on "Prevention and Management of Athletic Injuries," August 25, 26 and 27, for team physicians, coaches and trainers, the guest speakers will be Dr. Don H. O'Donoghue, orthopedic consultant at the University of Oklahoma; Dr. Thomas B. Quigley, assistant clinical professor of surgery at Harvard; and Joseph P. Dolan, Ph.D., research professor of physical education at the Northeast Missouri State Teachers College.

IRON-DEFICIENCY ANEMIA IN PREGNANCY

At the AAGP Annual Scientific Assembly in Dallas on March 25, Dr. Anthony Pisciotta, a Milwaukee hematologist, implicated anemia during pregnancy as one of the two main causes of iron-deficiency anemia of infancy, an ailment which he said is most common in infants between nine and 24 months of age. He stressed the need for supplemental iron in women who have had multiple pregnancies, inasmuch as the danger of anemia seems greatest in twins and triplets.

Diet, Dr. Pisciotta said, is the second main cause of this condition. He pointed out that some mothers adopt a "milk and cottage cheese" type of diet while nursing their babies. This diet provides virtually no iron and usually produces an iron-deficiency anemia.

He stated that the ailment could generally be remedied by administering 50 to 100 mg. of iron daily by mouth. However, in certain instances this treatment is contraindicated by a local gastrointestinal irritation, lack of palatability or an inadequate absorption of iron. In such cases a new iron-dextran complex called Imferon can be injected into the muscle. It is non-toxic and reliable, and at times produces a sensational reticulocyte response.

Dr. Pisciotta emphasized, however, that it is absolutely necessary to diagnose iron-deficiency anemia with certainty before injecting an iron preparation, for fear of iron overloading. The body has no mechanism for excreting parenterally-injected iron.

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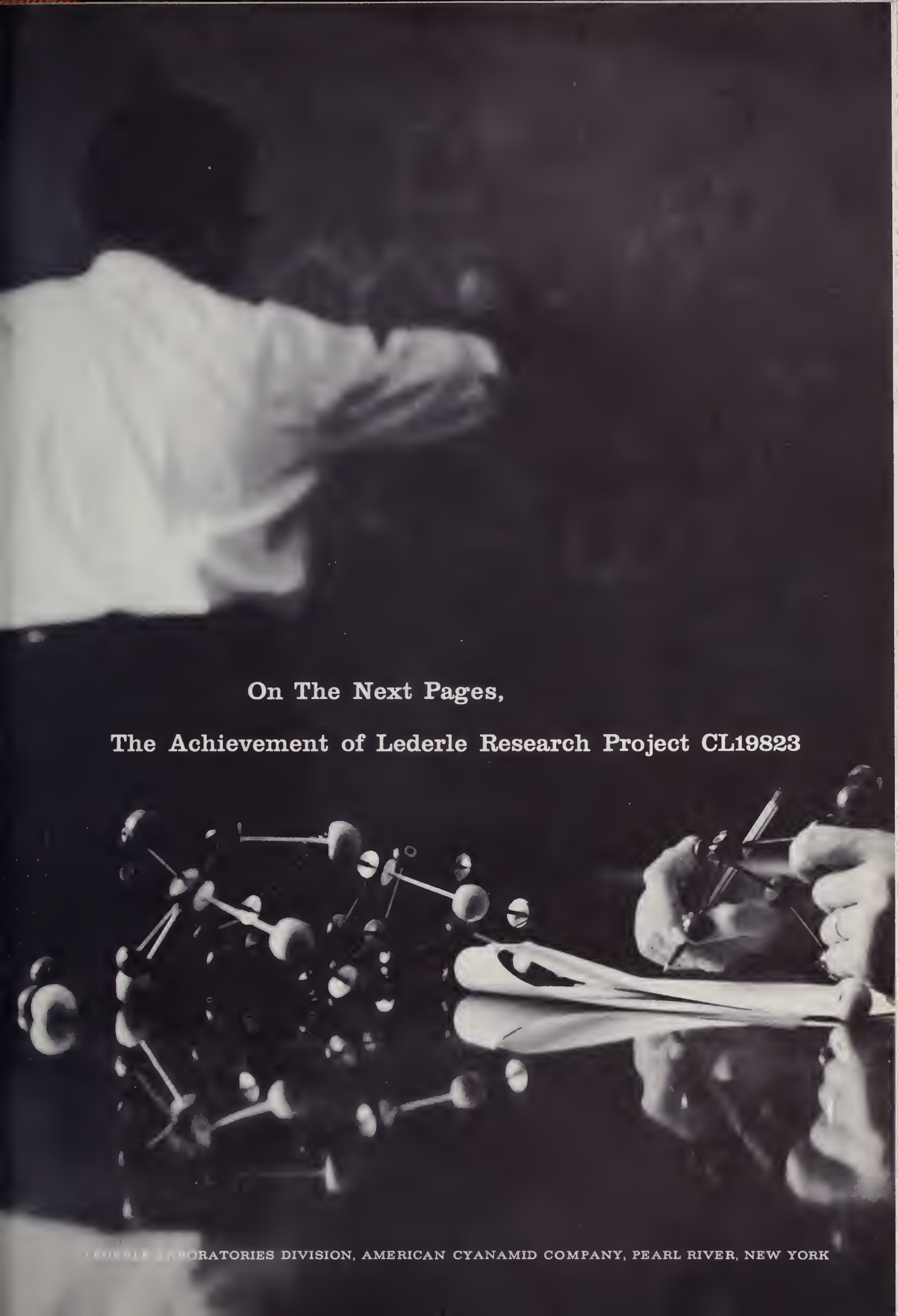
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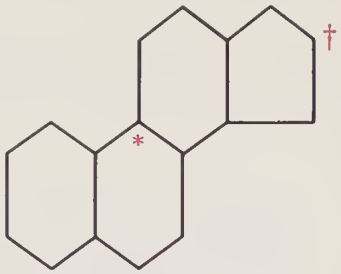
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- **a new high** in anti-inflammatory effects with lower dosage (averages 1/3 less than prednisone)
- **a new low** in the collateral hormonal effects associated with all previous corticosteroids
  - No sodium or water retention
  - No potassium loss
  - No interference with psychic equilibrium
  - Low incidence of peptic ulcer and osteoporosis

Biological Effects of Aristocort

with particular emphasis on:

Kidney function

Animal studies on ARISTOCORT[1] have not demonstrated any interference with creatinine or urea clearance. Autopsy surveys of organs of animals on prolonged study of this medication have shown no renal damage.

Sodium and water

ARISTOCORT produced an increase of 230 per cent of water diuresis and 145 per cent sodium excretion when compared to control animals.[1] Metabolic balance studies in man revealed an average negative sodium balance of 0.8 Gm. per day throughout a 12-day period on a dosage of 30 mg. per day.[2] Additional balance studies showed actual sodium loss when ARISTOCORT was given in doses of 12 mg. daily.[3] Other investigators observed significant losses of sodium and water during balance studies and that those patients with edema from some older corticosteroids lost it when transferred to ARISTOCORT.[4,5] In two studies of various rheumatic disorders (194 cases) on prolonged treatment, sodium and water retention was not observed in a single case.[6,7]

Potassium and chlorides

There was no active excretion of potassium or chloride ions in animals given maintenance doses of ARISTOCORT 25 times that found to be clinically effective.[1] Potassium balance studies in humans[2,3] revealed that negative balance did not occur even with doses somewhat higher than those employed for prolonged therapy in rheumatoid arthritis. Hypokalemia, hyperkalemia or hypochloremia did not occur, when tested, in 194 patients with rheumatoid arthritis treated for up to ten and one-half months.[6,7]

Calcium and phosphorus

Phosphate excretion in animals[1] was not changed from normal even with amounts 25 times greater (by body weight) than those known to be clinically effective. Human metabolic balance studies[3] demonstrated that no change in calcium excretion occurred on dosages usually employed clinically when the compound is administered for its anti-inflammatory effect. Even at a dosage level twice this, slight negative balance appeared only during a short period.

Protein and nitrogen balance

Positive nitrogen balance was maintained during a human metabolic study on maintenance dosage of 12 mg. per day.[3] At dosages two to three times normal levels, positive balance was maintained except for occasional short periods in metabolic studies of several weeks' duration.[2,3]

There was always a tendency for normalization of the A/G ratio and elevation of blood albumin when ARISTOCORT was used in treating the nephrotic syndrome.[8]



Liver glycogen deposition and inflammatory processes

An intimate correlation exists between the ability of a corticosteroid to cause deposition of glycogen in the liver and its capacity to ameliorate inflammatory processes.

In animal liver glycogen studies, relative potencies of ARISTOCORT over cortisone of up to 40 to 1 have been observed. Compared to ARISTOCORT, five to 12 times the amount of prednisone is required to produce varying but equal amounts of glycogen deposition in the liver.[1]

Most patients show normal fasting blood sugars on ARISTOCORT. Diabetic patients on ARISTOCORT may require increased insulin dosage, and occasional latent diabetics may develop the overt disease.

Anti-inflammatory potency of ARISTOCORT was determined by both the asbestos pellet[1] and cottonball[9] tests. It was found to be nine to 10 times more effective than hydrocortisone in this respect.

Gastric acidity and pepsin

The precise mode of ulcerogenesis during treatment with corticosteroids is not known. There is much experimental evidence for believing this may be related to the tendency of these agents to increase gastric pepsin and acidity—and this cannot be abolished by vagotomy, anticholinergic drugs or gastric antral resection.[10] Clinical studies[11] of patients on ARISTOCORT revealed that uropepsin excretion is not elevated. Further, their basal acidity and gastric response to histamine stimulation were within normal limits.

Central nervous system

The tendency of corticosteroids to produce euphoria, nervousness, mental instability, occasional convulsions and psychosis is well known.[12] The mechanism underlying these disturbances is not well understood.

ARISTOCORT, on the contrary, does not produce a false sense of well being, insomnia or tension except in rare instances. In the treatment of 824 patients, for up to one year, not a single case of psychosis has been produced. In general, it appears to maintain psychic equilibrium without producing cerebral stimulation or depression.

Bibliography

1. Experimental Therapeutics Section, Lederle Laboratories. To be published. 2. Bunim, J. J., Whedon, G., and Black, R. L.: Personal Communication. 3. Hellman, L., Zumoff, B., Schwartz, M. K., Gallagher, T. F., Berntsen, C. A., and Freyberg, R. H.: Antirheumatic and Metabolic Effects of a New Synthetic Steroid, paper quoted in Bull. Rheumat. Dis. 7: 130, 1957. 4. Spies, T. D.: South. M. J. 50: 216, (Feb.) 1957. 5. Freyberg, R. H.: Personal Communication. 6. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at the International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 7. Hartung, E. F.: To be published. 8. Hellman, L., Zumoff, B., Kretschmer, N. and Kramer, B.: Personal Communication. 9. Dorfman, R. I., and Dorfman, A. S.: Personal Communication. 10. Gray, S. J., Ramsey, C. G., Villarreal, R., and Krakauer, L. J.: Edited by H. Selye and G. Heuser in: Fifth Annual Report on Stress, 1955-56. M.D. Publications, Inc., New York, 1956, p. 138. 11. Dubois, E. L.: Personal Communication. 12. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957.

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The Promise of Aristocort in Reduction of Side Effects

It is axiomatic to affirm that the undesirable collateral hormone effects of corticosteroids increase in frequency and severity the higher the dosage and the longer used.

It has also become well recognized that the most serious of the major side effects from long-term corticosteroid treatment are peptic ulcers, osteoporosis with fracture, drug psychosis and euphoria, and sodium and water retention leading often to general tissue edema and hypertension.

It is significant that of the close to 400 patients on the lower dosage schedules found effective in bronchial asthma and dermatologic conditions, only 1 case of peptic ulceration has developed. No other of the above side effects have been observed even though ARISTOCORT was administered continuously to them for periods as long as one year.

The treatment of rheumatoid arthritis with steroids appears to result in the highest incidence of side effects. For this reason, the side effects associated with ARISTOCORT therapy in 292 patients with rheumatoid arthritis are reported below.

Peptic Ulcer

The occurrence of peptic ulcer in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is approximately 1 per cent (2 of the 3 occurred in patients transferred from prednisone). In the remaining 532 cases recently analyzed, only one ulcer has been discovered in a patient who apparently had no ulcer when he was changed from another steroid.

Osteoporosis and Compression Fractures

The occurrence of osteoporosis with compression fracture in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is 0.33 per cent (1 case[1]). Although these results are encouraging, determination of the true incidence of osteoporosis will have to await the passage of more time.

Euphoria and Psychosis

The euphoria so commonly produced by all previous corticosteroids has seemed a most desirable attribute to patients. In penalty, however, they have often later to pay for this by mental disturbances, varying from mild and transitory to severe depression and psychosis,[2] and toxic syndromes producing even convulsions and death.[3]

Since the onset of these complications is not directly related to duration of steroid administration,[4] the fact that not one case of psychosis occurred in 824 patients treated with ARISTOCORT, is most encouraging.

Sodium Retention—Hypertension—Potassium Depletion

When 17 patients were changed from prednisone to ARISTOCORT, 11 rapidly lost weight although only one had had visible edema.[5] Sodium and water retention, hypokalemia or hyperkalemia and steroid hypertension did not appear in 194 rheumatoid arthritis patients treated with ARISTOCORT.[1,6]

The interrelation between blood and body sodium, and steroid hypertension has long been generally appreciated.[7,8] Except in rare instances, or when unusually high doses are used (e.g., leukemia), the problem of edema and hypertension caused by sodium and water retention, has been eliminated with ARISTOCORT.

Minor Side Effects

Collateral hormonal effects of less serious consequence occurred with approximately the same frequency as with the older corticosteroids.[1] These include erythema, easy bruising, acne, hypertrichosis, hot flashes and vertigo. Several investigators have reported symptoms not previously described as occurring with corticosteroid therapy, e.g., headaches, lightheadedness, tiredness, sleepiness and occasional weakness.

Moon facies and buffalo humping have been seen in some patients on ARISTOCORT. However, ARISTOCORT therapy, in many instances, resulted in diminution of "Cushingoid" signs induced by prior therapy. Where this occurs, it may be related to reduced dosage on which patients can be maintained.

Reduction of dosage by one-third to one-half

In a double-blind study of comparative dosage in patients with rheumatoid arthritis,[9] 70 per cent of the cases were as well controlled on a dose of ARISTOCORT one-half that of prednisone. A general recommendation can be made that ARISTOCORT be used in doses two-thirds that of prednisone or prednisolone in the treatment of rheumatoid arthritis. There are individual variations, however, and each patient should be carefully titrated to produce the desired amount of disease suppression.

Comparative studies, of patients changed from prednisone, indicate reduced dosage of ARISTOCORT in bronchial asthma and allergic rhinitis (33 per cent),[5] and in inflammatory and allergic skin diseases (33-50 per cent).[10,11]

General Precautions and Contraindications

Administration of ARISTOCORT has resulted in lower incidence of major serious side effects, and in fewer of the troublesome minor side effects known to occur with all previously available corticosteroids. However, since it is a highly potent glucocorticoid, with profound metabolic effects, all traditional contraindications to corticosteroid therapy should be observed.

No precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

Since ARISTOCORT has less of the traditional side effects, the appearance of sodium and water retention, potassium depletion, or steroid hypertension cannot be used as signs of overdosage. As a rule patients will lose some weight during the first few days of treatment as a result of urinary output, but then the weight levels off.

Patients do not develop the abnormally voracious appetite common to previous corticosteroid administration. In fact, some patients experienced anorexia, and it is advisable to inform patients of this and to recommend they maintain a normal intake of food, with emphasis on liberal protein intake.

While precipitation of diabetes, peptic ulcer, osteoporosis, and psychosis can be expected to appear rarely from ARISTOCORT, they must be searched for periodically in patients on long-term steroid therapy.

Traditional precautions should be observed in gradually discontinuing therapy, in meeting the increased stress of operation, injury and shock, and in the development of intercurrent infection.

There is one overriding principle to be observed in the treatment of any disease with ARISTOCORT. *The amount of the drug used should be carefully titrated to find the smallest possible dose which will suppress symptoms.*

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Bunim, J. J.: Bull. New York Acad. Med. 33:461, 1957. 3. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957. 4. Goolker, P., and Schein, J.: Psychosom. Med. *15*:589, 1953. 5. Sherwood, H., and Cooke, R. A.: J. Allergy 28:97, 1957. 6. Hartung, E. F.: Personal Communication. 7. Schroeder, H. A.: J.A.M.A. *162*:1362, 1956. 8. Thorn, G. W., Laidlaw, J. C., and Goldfein, A.: Ciba Found. Coll. on Endocrinology, J. & A. Churchill, Ltd., London, *8*:343, 1955. 9. Freeman, H., Bachrach, S., McGilpin, H. H., and Dorfman, R. I.: Personal Communication. 10. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A. *165*:1821, 1957. 11. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.

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The Promise of Aristocort in Rheumatoid Arthritis

ARISTOCORT *therapy has been intensely and extensively studied for periods up to one year on 292 patients with rheumatoid arthritis.*

Significant is the fact that most patients were *severe* arthritics, transferred to ARISTOCORT from other corticosteroids because satisfactory remission had not been attained, or because the seriousness of collateral hormonal effects had made discontinuance desirable.

Results of treatment

Freyberg and associates[1] treated 89 patients with rheumatoid arthritis (A. R. A. Class II or III and Stage II or III). Of these, 51 were on ARISTOCORT therapy from three to over 10 months. In all but a few patients, satisfactory suppression of rheumatoid activity was obtained with 10 mg. per day. Thirteen were controlled on 6 mg. or less a day, and for periods to 180 days. The investigators reported therapeutic effect in most cases to be A. R. A. Grade II (impressive) and that marked reduction in sedimentation rates occurred.

Another interesting observation in this study: Of the 89 patients treated, 12 had active ulcers, developed from prior steroid therapy. *In six patients, the ulcers healed while on doses of* ARISTOCORT *sufficient to control arthritic symptoms.*

Hartung[2] treated 67 cases of rheumatoid arthritis for up to 10 months. He found the optimum maintenance dose to be 11 mg. per day. Nineteen of these patients were treated for six to 10 months with an "excellent" therapeutic response.

Dosage and course of therapy

The initial dosage range recommended is 14 to 20 mg. per day—depending on the severity and acuteness of signs and symptoms. Dosage is divided into four parts and given with meals and at bedtime. Anti-rheumatic effect may be evident as early as eight hours, and full response often obtained within 24 hours. This dosage schedule should be continued for two or three days, or until all acute manifestations of the disease have subsided, whichever is later.

The maintenance level is arrived at by reduction of the total daily dosage in decrements of 2 mg. every three days. The range of maintenance therapy has been found to be from 2 mg. to 15 mg. per day—with only a very occasional patient requiring as much as 20 mg. per day. Patients requiring more than this should not be long continued on steroid therapy.

The aim of corticosteroid therapy in rheumatoid arthritis is to suppress the disease only to the stage which will enable the patient to carry out the required activities of normal living or to obtain reasonable comfort. The maintenance dose of ARISTOCORT to achieve this end is arrived at while making full use of all other established methods of controlling the disease.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Hartung, E. F.: Paper presented at Florida Academy of General Practice, St. Petersburg, Florida, Nov. 2, 1957.

Lederle

The Promise of Aristocort in Respiratory Allergies

About 200 patients with respiratory allergies have been treated with ARISTOCORT *for continuous periods up to eight months.*

Results of treatment

Sherwood and Cooke[1,2] gave ARISTOCORT to 42 patients with bronchial asthma and allergic rhinitis. Average dose needed to control the asthmatic group was approximately 6 mg. per day (range, 2 to 14 mg.). Results, which were called "good to excellent" in all but four, were achieved on one-third less than similarly effective doses of prednisone or prednisolone.

The investigators noted other major improvements in ARISTOCORT therapy over the older steroids. There was no increase in blood pressure in any patient: *on the contrary, in 12 patients, there was reduction of pressure when they were transferred to* ARISTOCORT. One patient had required auxiliary antihypertensive drug therapy; over a nine-week period on ARISTOCORT, the pressure gradually fell from 206/100 to 136/79. In another case, the pressure slowly dropped from 205/105 to 154/86.

The number of cases in which these investigators tried ARISTOCORT in allergic rhinitis was not large enough to provide significant averages. However, the range of effective therapy was from 2 to 6 mg. per day. These strikingly low daily doses resulted in control of all signs and symptoms.

Schwartz[3] treated 30 patients with chronic, intractable bronchial asthma. At an average daily dose of 7 mg., he reported "good to excellent" results in all but one. Spies,[4] Barach[5] and Segal,[6] reported similar results at average daily maintenance doses of 4 to 10 mg. of ARISTOCORT.

Dosage and course of therapy

The initial dosage range recommended is 8 to 14 mg. of ARISTOCORT daily. Although a rare, very severe case may require more than this on the first day of therapy, these dosages will usually result in prompt alleviation of dyspnea, wheezing and cyanosis. Patients are soon able to carry out a normal span of daily activity.

The maintenance level is arrived at by reduction of the total daily dose every three days in decrements of 2 mg.; in the over-all series, the average daily dose for bronchial asthma is approximately 8 to 10 mg. and for allergic rhinitis, 2 to 6 mg. per day. All total daily doses should be divided into four parts and given with meals and at bedtime. As in every condition where corticosteroids are employed, each patient's treatment should be individualized and the maintenance arrived at by careful titration against signs and symptoms of disease.

Patients with chronic bronchial asthma may require steroid therapy for several months. And since asthma may be associated with cardiac disease, especially in the older age groups, ARISTOCORT is particularly useful because of its ability to cause excretion of sodium and water.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Sherwood, H., and Cooke, R. A.: J. Allergy 28:97, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Schwartz, E.: Personal Communication. 4. Spies, T. D.: Personal Communication. 5. Barach, A. L.: Personal Communication. 6. Segal, M. S.: Personal Communication.

Lederle

The Promise of Aristocort

in Nephrotic Syndrome

Fourteen patients with the nephrotic syndrome have been treated with ARISTOCORT *for continuous periods of up to six weeks.*

Results of treatment

Hellman and associates[1,2] noted that ARISTOCORT, because of its favorable electrolyte effects, may well be the most desirable steroid to date in treatment of the nephrotic syndrome. However, thus far its use has been reported in only 14 children, of whom 8 had a complete diuresis and disappearance of all abnormal chemical findings. Four of the patients had diuresis, but continued to show some abnormal chemical findings, while two patients with signs of chronic renal disease failed to respond.

Dosage and course of therapy

In order to produce maximal response, 20 mg. should be given daily until diuresis occurs. The dose should then be decreased gradually and maintained around 10 mg. a day. After the patient has been in remission for some time, it may be advisable to diminish the dose gradually and discontinue ARISTOCORT.

in Pulmonary Emphysema and Fibrosis

Eleven patients with pulmonary emphysema and/or fibrosis were treated with ARISTOCORT *for continuous periods of over two months.*

Results of treatment

Only small series of cases observed by Barach,[3] Segal,[4] and Cooke,[5] are available. Barach treated patients who were not adequately controlled by prednisone, with the same dose of ARISTOCORT with significant improvement.

Dosage and course of therapy

The initial suppressive dose range recommended is 10-14 mg. daily. Frequently, there is a prompt decrease in cyanosis and dyspnea, with increase in vital capacity.

The average maintenance dose level was 8 mg. a day. If it is desired to maintain a patient on continuous therapy for some months, dosages as low as 2 mg. a day have been successful. All decreases in dosage should be gradual and at a rate of 2 mg. decrements in total daily amount, every two to four days. The daily dosage is divided into four parts and given with meals and at bedtime.



in Neoplastic Diseases

Forty-four children and adults have been given ARISTOCORT *for palliative treatment of acute leukemia, chronic lymphatic leukemia, lymphosarcoma, lympholeukosarcoma and Hodgkin's disease.*

Results of treatment

Farber[6] has treated 22 children with acute leukemia for an average of three weeks. Of the 17 observed long enough to judge the efficacy of the medication, he rated five as excellent, three as good, two as fair and seven as poor responses.

Hellman and associates[7] gave ARISTOCORT to a group of patients with the various lymphomas in doses of 40 to 50 mg. a day—occasionally up to 100 milligrams. Treatment was continued in some cases for 17 weeks. Response was classified as good for the palliative purposes for which the drug was given.

Dosage and course of therapy

Massive initial suppressive doses of 40 to 50 mg. per day in children (1 mg./kg./day) and up to 100 mg. a day in adults have been administered.

Responses to any specific dosage in these conditions vary so widely that only a general dosage range can be indicated. Treatment must be individualized; rate of reduction in dosage and determination of maintenance levels cannot be categorized.

Miscellaneous

Patients with various other diseases have been treated by several clinical investigators. These include patients with osteoarthritis, acute bursitis, rheumatic fever, spondylitis, other "collagen-vascular" diseases (dermatomyositis, etc.), thrombocytopenic purpura, chronic eosinophilia, hemolytic anemia, diuretic-resistant congestive heart failures, and adrenogenital syndrome.

There have not been sufficient patients in any of the above categories to permit definitive treatment schedules to be finally established for ARISTOCORT. Additional studies are now in progress and physicians desiring information on any of these diseases are requested to write to Lederle Laboratories, Pearl River, New York for available data.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Presented at Nephrosis Conf., Bethesda, Md., Oct. 26, 1957. 2. Ibid: Personal Communication. 3. Barach, A. L: Personal Communication. 4. Segal, M. S.: Personal Communication. 5. Cooke, R. A.: Personal Communication. 6. Farber, S.: Personal Communication. 7. Hellman, L., Diamond, H. D., Ellison, R., Jaslowitz, B., Murphy, M. L., Tan, C. and Zumoff, B.: Personal Communication.

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The Promise of Aristocort

in Inflammatory and Allergic Skin Diseases

◊ *Over 200 patients with allergic and inflammatory skin diseases (including psoriasis, atopic dermatitis, exfoliative dermatitis, pemphigus, dermatitis herpetiformis, eczematoid dermatitis, contact dermatitis and angioneurotic edema) have been treated continuously with* ARISTOCORT *for periods of up to eight months.*

Results of treatment

Rein and associates[1] treated 26 patients with severe dermatitis. Twenty-four had been on prednisone when changed to ARISTOCORT. While some had found satisfactory symptomatic relief, others had also developed side effects—moon face, buffalo hump, increased appetite with excessive weight increases and gastro-intestinal disturbances.

These investigators determined the equivalent dosage of ARISTOCORT to be approximately two-thirds that required to control symptoms on the previous corticosteroid. Thirteen of the 26, who had developed moon face, noted either an actual decrease or no further increase when transferred to ARISTOCORT. In addition: *Voracious appetites disappeared, with loss of weight in 11 patients; there was no elevation in blood pressure, and no necessity to restrict sodium or administer supplemental potassium.* Sherwood and Cooke,[2] and Shelley and Pillsbury[3] obtained similar results in allied disorders.

Hollander[4] first observed that ARISTOCORT appears to have striking affinity for the skin and great activity in controlling such diseases as psoriasis, for which other corticosteroids have been indifferently effective. Shelley and Pillsbury,[3] in 50 cases of acute extending psoriasis found that over 60 per cent were markedly improved.

Dosage and course of therapy

The recommended initial suppressive dose range is 14 to 20 mg. per day. In very severe cases, temporary dosages up to 32 mg. a day have been successfully employed. Once lesions are suppressed, gradually reduce dose to the maintenance level—which may be as low as 2 mg. per day.

Bibliography

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A., *165*:1821, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Shelley, W. B., and Pillsbury, D. M.: Personal Communication. 4. Hollander, J. L.: Discussion of Paper by Black, R. L., presented at International Congress on Rheumatic Diseases, Toronto, June 28, 1957.

in Disseminated Lupus Erythematosus

◊ *Forty patients with disseminated lupus erythematosus were treated with* ARISTOCORT *for continuous periods of up to nine months.*

Results of treatment

Patients have responded very promisingly to therapy. Dubois[1] has had the largest single experience (28 cases) with ARISTOCORT in the treatment of this disease. He reported 25 of the 28 responded favorably.

Freyberg,[2] Hartung,[3] Hollander,[4] Spies,[5] and Segal,[6] each in smaller series of cases, reported similarly good therapeutic responses.

Dosage and course of therapy

The initial suppressive dose recommended is 20-30 mg. daily. Once the desired effect is achieved, the dose should be reduced gradually to maintenance levels (3 to 18 mg. per day).

In severely ill patients large doses may be required for several days in order to preserve life. Even on these large doses, edema and sodium retention have not occurred.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Dubois, E. L.: Personal Communication. 2. Freyberg, R. H.: Personal Communication. 3. Hartung, E. F.: Personal Communication. 4. Hollander, J. L.: Personal Communication. 5. Spies, T. D.: Personal Communication. 6. Segal, M. S.: Personal Communication.

Lederle

GERIATRIC MEDICINE

Following is the program of the Washington University School of Medicine's Second Annual Postgraduate Course in Geriatric Medicine, which is to be presented at Wohl Hospital Auditorium, 4960 Audubon Avenue, St. Louis, on Saturday and Sunday, May 24 and 25. No fees will be charged.

Saturday, May 24

9:00 a.m. "Geriatric Medicine and Its Relation to Medical Practice"—William B. Kountz, M.D., assistant professor of medicine.*

9:30 a.m. "Age, Biological Change and Disease"—E. V. Cowdry, Ph.D., research professor emeritus of anatomy.

10:00 a.m. "Etiology of Arteriosclerosis and Its Relation to Disease Problems of Later Years"—Jeremiah Stamler, M.D., assistant director, Cardiovascular Department, Michael Reese Hospital, Chicago.

11:00 a.m. "Recognition and Control of Heart Disease in Midlife and Beyond"—Kenneth Price, M.D., instructor in clinical medicine.

11:30 a.m. "The General Therapy of Heart Disease"—James Owen, M.D., instructor in clinical medicine.

1:00 p.m. "Recent Advances in the Study and Management of Arterial Occlusion and Changes Resulting Therefrom"—William T. Foley, M.D., chief of the Vascular Clinic, New York Hospital-Cornell Medical Center.

2:00 p.m. "Early Detection of Cancer in Human Tissues"—Robert H. Lund, M.D., assistant in clinical surgery.

2:30 p.m. "Blood Dyscrasias Common in Geriatric Medicine"—Carl Moore, M.D., Busch professor of medicine and head of the Department of Internal Medicine.

3:00 p.m. "Chemotherapy of Cancer"—Edward Reinhard, M.D., associate professor of medicine.

4:00 p.m. "Surgical Procedures in Geriatric Medicine"—Carl A. Moyer, Bixby professor and head of the Department of Surgery.

4:30 p.m. "Gynecologic Problems Common in Older People"—Willard M. Allen, professor and head of the Department of Obstetrics and Gynecology.

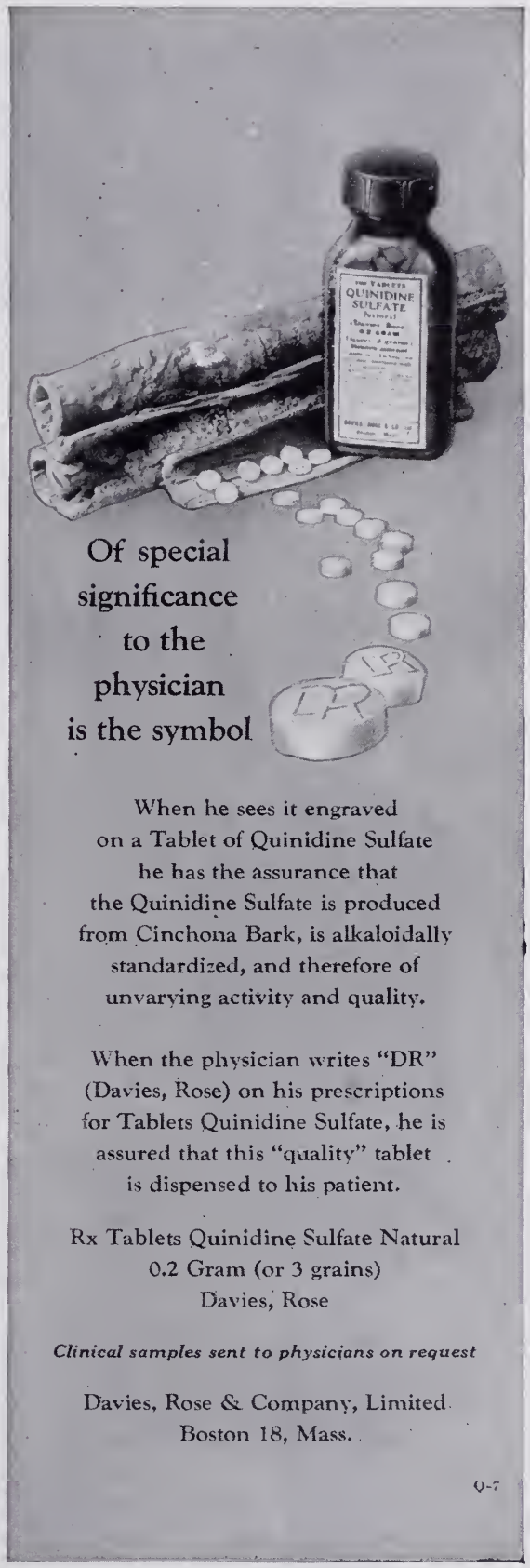
6:30 p.m. RECEPTION AND BANQUET. ANNUAL MEETING OF THE GERONTOLOGICAL RESEARCH FOUNDATION (at the Park Plaza Hotel).
"Recreational Measures and Their Value to Older People"—Alexander Reid Martin, M.D., chairman of the standing committee of the American Psychiatric Association on Cooperation With Leisure Time Agencies.

Sunday, May 25

9:00 a.m. "Stamina of Individuals as It Pertains to Health in Later Years"—Kaare Rodahl, M.D., director of research, The Lankenau Hospital, Philadelphia.

10:00 a.m. "Rehabilitation of the Elderly Person"—Donald L. Rose, M.D., professor of physical

* Except as otherwise noted, the speakers are on the Washington University faculty.



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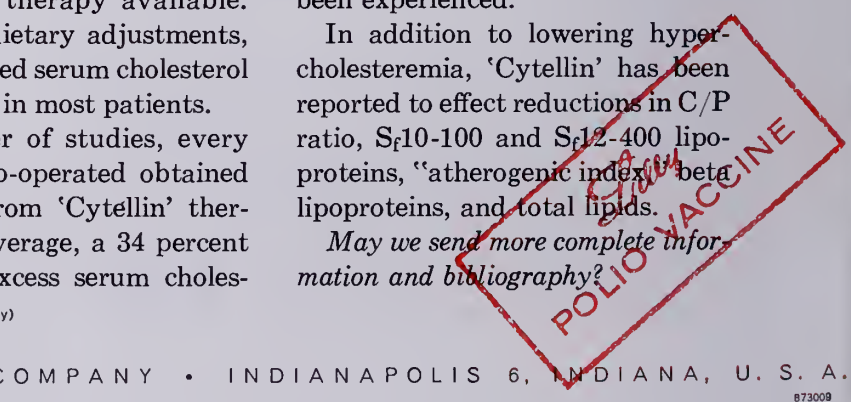
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May 15 ... A Rural Community Receives a New Doctor
May 22 ..... A New Doctor in the Community
May 29 ..... Success of Health Council Survey

WSUI—Iowa City, Iowa

Monday at 3:30 p.m.

"GROWING UP"

May 5 ..... Dizzy Whirl
May 12 ..... The Gang
May 19 ..... Social Responsibility
May 26 ..... Skin Problems, Cleanliness

TELEVISION

KQTV—Fort Dodge, Iowa

Wednesday at 7:00 p.m.

May 7 ..... Eye Surgery
May 14 ..... Foot Troubles
May 21 ..... Hip-Pinning
May 28 ..... Acne

KCRG-TV—Cedar Rapids, Iowa

Sunday at 1:00 p.m.

May 4 ..... Head Injuries
May 11 ..... Fractures
May 18 ..... Eye Surgery
May 25 ..... Foot Troubles

KVTV—Sioux City, Iowa

Sunday at 1:00 p.m.

May 4 ..... Internal Diagnostic Methods
May 11 ..... Instrumental Aids in Diagnosis
May 18 ..... Medical Research
May 25 ..... Head Injuries

The foregoing schedules are subject to change at the discretion of the station managers.



* J.A.M.A. *166*:158,1958; Welsh, A.L. and Ede, M. "...*prompt remissions of...acute phases.*" with TARCORTIN

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* 1. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.
2. Bleiberg, J.: J. M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Welsh, A. L., and Ede, M.: Ohio State M. J. *50*:837, 1954.
5. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.

TB AND OTHER PULMONARY DISEASES

The Trudeau School of Tuberculosis and Other Pulmonary Diseases, which will hold its forty-third session in Saranac Lake, New York, from June 2 to 20, provides a unique opportunity for training in chest diseases. Three weeks of instruction are provided for a minimal $100 tuition. The faculty will consist of about 30 leading teachers and investigators from the eastern states and Canada, and about 40 physicians who compose the staff of the Sunmount VA Hospital and the Saranac Lake and Ray Brook State Tuberculosis Hospitals.

Approximately half of the time will be devoted to tuberculosis, and the other half is to be divided among such subjects as silicosis, pulmonary fibrosis, emphysema, fungus infection, sarcoidosis, pneumonias and intrathoracic tumors.

All inquiries should be addressed to the secretary of the Trudeau School of Tuberculosis and Other Pulmonary Diseases, Box 500, Saranac Lake, New York. The enrollment is limited and application should be made early. Housing will be available for doctors who wish to take their families with them and combine study with recreation.

COUNCIL ON HEALTH CARE OF THE AGED

The American Dental Association, the American Hospital Association and the American Medical Association have recently set up a Council on Health Care of the Aged which is expected to produce some highly worthwhile data and plans.

One of its first jobs will be to determine the scope and facets of the problem. The organizations sponsoring the Council have been at work individualy for a long time in making studies, but it is expected that joint action will eliminate duplications and speed up the task.

Another facet of the Council's program will be to cooperate with insurance carriers in an effort to make the health dollars of the aged go farther than they now do.

It is the feeling of the sponsoring groups that communities and states, rather than the Federal government, should take the lead in providing for the special needs of older people, and in consequence the Council intends to stimulate local interest in the problems.

Special research projects are contemplated by each of the organizations supporting the Council, and the results will be pooled and programs will be developed for the ultimate goal of providing adequate health care at reasonable cost.

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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LIST YOUR WANTS

(Additional Want Ads on page lxvii)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

LOCUM TENENS. Man needed to take over general practice during the month of August. Good salary or percentage. Living quarters can be arranged. Address No. 1,087, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

WANTED: General practitioner with special interest in internal medicine, to fill vacancy in four-man clinic in midwestern Iowa community of 2,500. Hospital, laboratory and x-ray facilities available. Beginning salary, with eventual partnership. Address: No. 1,075, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

FOR LEASE: Colorado-Lakewood Medical Building can custom-tailor your office suite. Progressive, exclusive suburban Denver area. Past few months beyond expectations. Need G-P, EENT, O.B.-Gynecologist. Heart Specialist & Skin Specialist. Reasonable rent, restricted building, air-conditioning, ample parking. Reply: Management Dept., Lakewood Realty, 7845 West Colfax, Denver 15, Colorado.

WANTED: Young physician to work with elderly doctor in north-central Iowa town, and to take over the practice when he has become well established. Retiring physician will help with financing if necessary. Fine farming community, good schools and churches, hospital 15 minutes distant. Practice now grosses between $30,000 and $34,000, and can be greatly increased. Applicant must furnish credentials, and if accepted can arrange to start work either at once or soon. Address: No. 1,072, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

FOR SALE: Office equipment and practice in a growing county-seat town of 7.000 people in northeast Iowa. The present physician is definitely retiring after practicing in the town since 1915. Address No. 1,093 Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

General practitioner with special interest in obstetrics and pediatrics desires association with indivdual or small group in Iowa community of 5.000 or over. Address No. 1082, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Microscope, sterilizer, examining table and other office instruments. Give age and price. Address No. 1,091, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER wishes to sell combination home and office in central Iowa town. Practice is to be included in the sale. Community is predominantly Lutheran, but the town has Catholic, Methodist and Presbyterian churches as well. Collections are excellent. Address No. 1,086, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

INTERNIST wanted by a clinic group which owns and operates a 150-bed hospital in a Texas town of 12,000 people. This is an opportunity for a doctor to join the clinic as a partner and also to become a part of a growing community. Address No. 1,085, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: General practitioner to take over active practice in fast-growing community. Great deal of obstetrics and pediatrics. Five minutes from excellent hospital. New ground-floor office has 1,000 ft. of floor space, air-conditioning, ample parking space. All types of recreational and social activities available. Leaving for personal reasons. Address No. 1,089, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

EXCELLENT OPPORTUNITY in group practice for a young general practitioner to replace a retiring partner in a growing Nebraska town of 15,000. Good salary to start; partnership as quickly as desired. Address No. 1,084, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

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LIST YOUR WANTS

(Additional Want Ads on page lxvi)

FOR SALE: One Liebel-Flarshcim diathermy unit (SW-330, catalog pT-448 Ivory) with two air-spaced plates and two pads. Total use less than 50 hours. The owner has sold his general practice and must dispose of this piece of equipment. Forty per cent off the new price. Address No. 1073, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: Two metal ENT treatment chairs in excellent condition, $25 each; one Bausch & Lomb refracting chair in fair condition, $25. Address: John B. Dixon, M.D., 802 Brick & Tile Building, Mason City, Iowa.

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WANTED: Young physician to do mostly pediatrics and obstetrics in busy two-man group. Air-conditioned office. First-year salary $12,000; partnership thereafter. Practice is in one of Iowa's largest cities and now nets $114,000 per year. Address: No. 1,081, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Young physician to do general practice and internal medicine in three-man group. New clinic building open in June; $12,000 first year, partnership later; county seat town in northwest Iowa. Address No. 1,092, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: General practice, new 3-bedroom home, and office (equipped or not) in northeast Iowa town of 2,500. Practice established for 13 years grosses between $40,000 and $45,000; good collections. Town has 25-bed hospital, and parochial as well as public schools; it really needs two new doctors. Address: No. 1,079, Journal of the Iowa State Medical Society, 529 36th Street, Des Moines 12, Iowa.

LOCUM TENENS or assistant's position preferably in the Des Moines area, sought by unmarried S.U.I. graduate with Iowa license. Completed rotating intership and one year of internal medicine prior to entry into Air Force. To be discharged August 1, 1958; available until October 1, 1958. Address: No. 1,078, Journal of the Iowa State Medical Society, 529 36th Street, Des Moines 12, Iowa.

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WANTED: Obstetrician-gynecologist under the age of 40, board qualified or certified, to practice in an eastern Oklahoma area with a population of 90.000. Will associate with only obstetrician within 40 miles. Heart of Lake Country. Address No. 1,088, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

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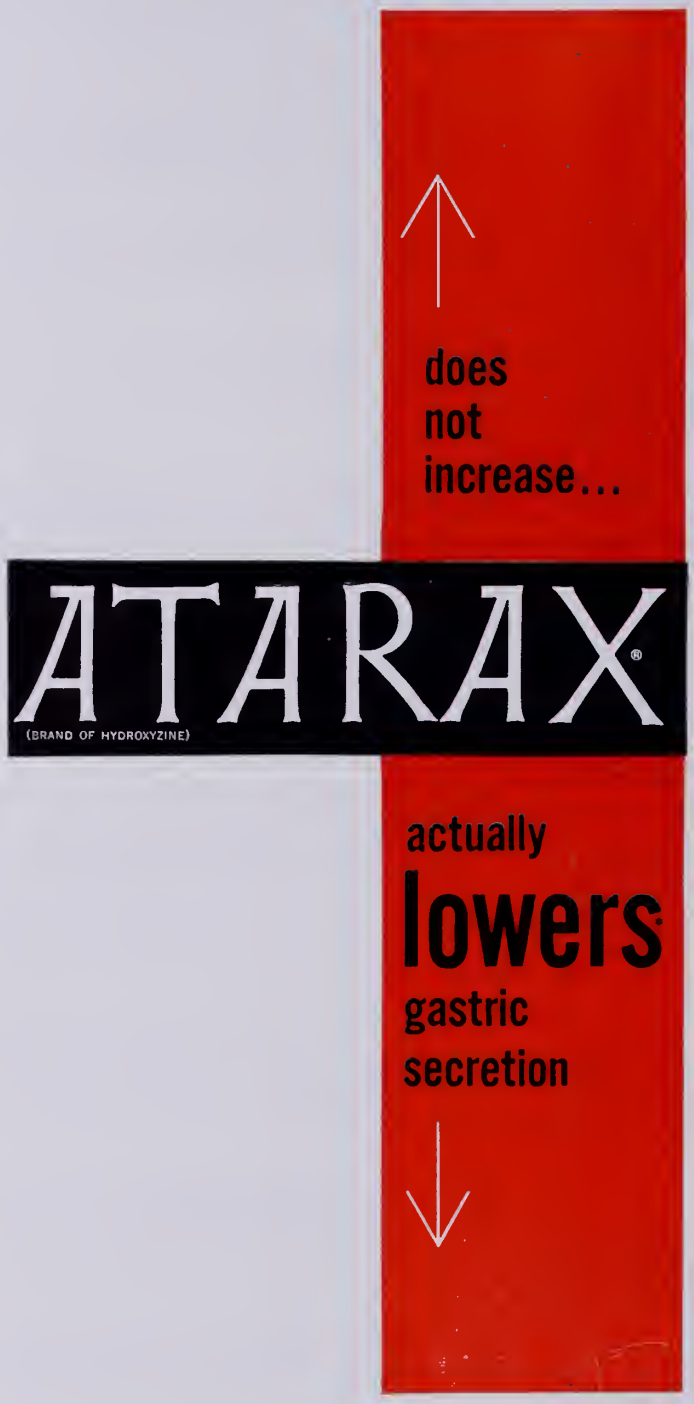
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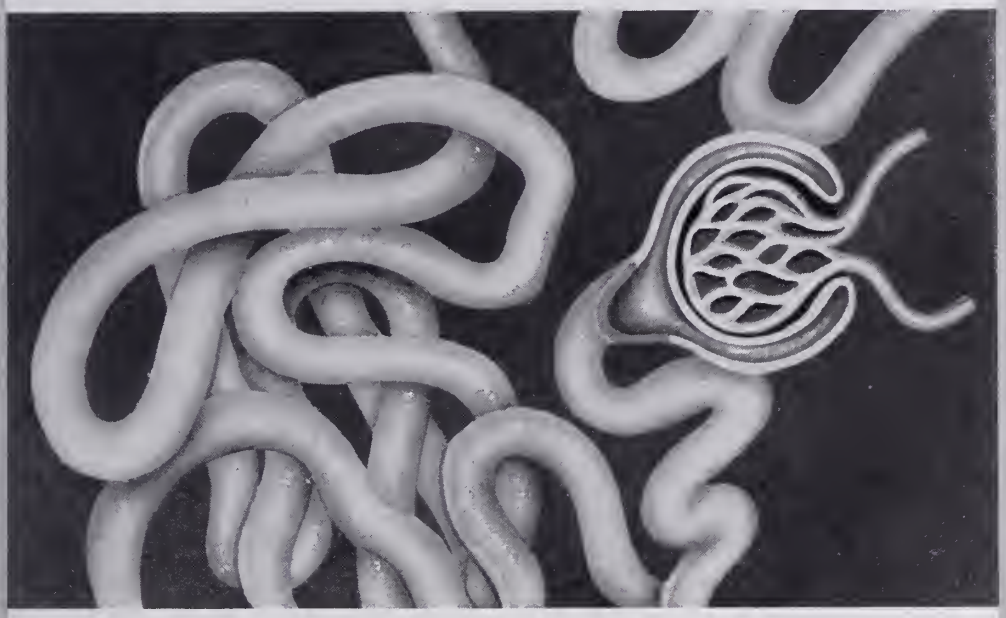
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REFERENCES: (1) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M.A.J.* 77:844 (Nov. 1) 1957. (2) Schneierson, S. S.: *J. Mt. Sinai Hosp.* 25:52 (Jan.-Feb.) 1958. (3) Hasenclever, H. F.: *J. Iowa M. Soc.* 47:136, 1957. (4) Rhoads, P. S.: *Postgrad. Med.* 21:563, 1957. (5) Caswell, H. T., and others: *Surg. Gynec. & Obst.* 106:1, 1958. (6) Josephson, J. E., & Butler, R. W.: *Canad. M.A.J.* 77:567 (Sept. 15) 1957. (7) Petersdorf, R. G.; Curtin, J. A., & Bennett, I. L., Jr.: *Arch. Int. Med.* 100:927, 1957. (8) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 101:397, 1958. (9) Holloway, W. J., & Scott, E. G.: *Delaware M. J.* 29:159, 1957. (10) Murphy, J. J., & Rattner, W. H.: *J.A.M.A.* 166:616 (Feb. 8) 1958. (11) Neter, E., & Hodes, H. L.: *Pediatrics* 20:362, 1957. (12) Woolington, S. S.; Adler, S. J., & Bower, A. G., in Welch, H., & Martí-Ibañez, F.: Antibiotics Annual 1956-1957, New York, Medical Encyclopedia, Inc., 1957, p. 365.

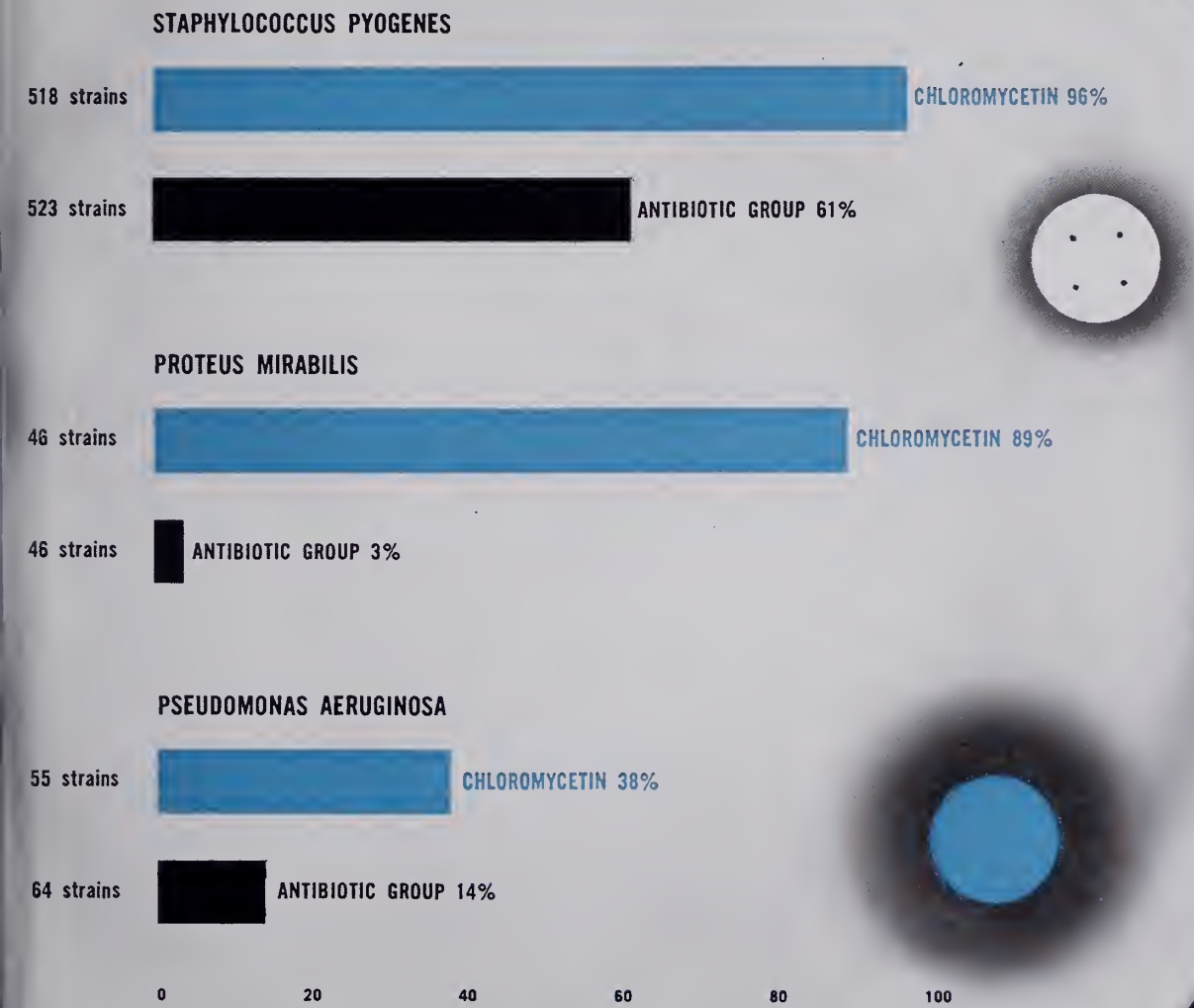
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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

Supplied: 2-cc. and 5-cc. ampuls, boxes of 4. Physician's directions in every box. There are 50 mg. of elemental iron per cc. Request brochure NDA 17, Imferon.

IMFERON® is distributed by Lakeside Laboratories, Inc., under license from Benger Laboratories, Limited.

LAKESIDE 33058

in each of these indications for a tranquilizer...



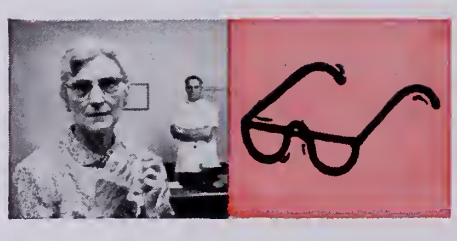
SR is a cardiac patient. His doctor put him on ATARAX because (+) it is an anti-arrhythmic and non-hypotensive tranquilizer.



Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+) it lowers gastric secretion while it tranquilizes.



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Senile anxiety and persecution complex dogged Mrs. K. until her doctor prescribed ATARAX Syrup. (+) It tastes good, and it's a perfect vehicle for Mrs. K's tonic.

Dosage: Children, 1-2 *10 mg.* tablets or 1-2 tsp. Syrup t.i.d. Adults, one *25 mg.* tablet or 1 tbsp. Syrup q.i.d.

Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

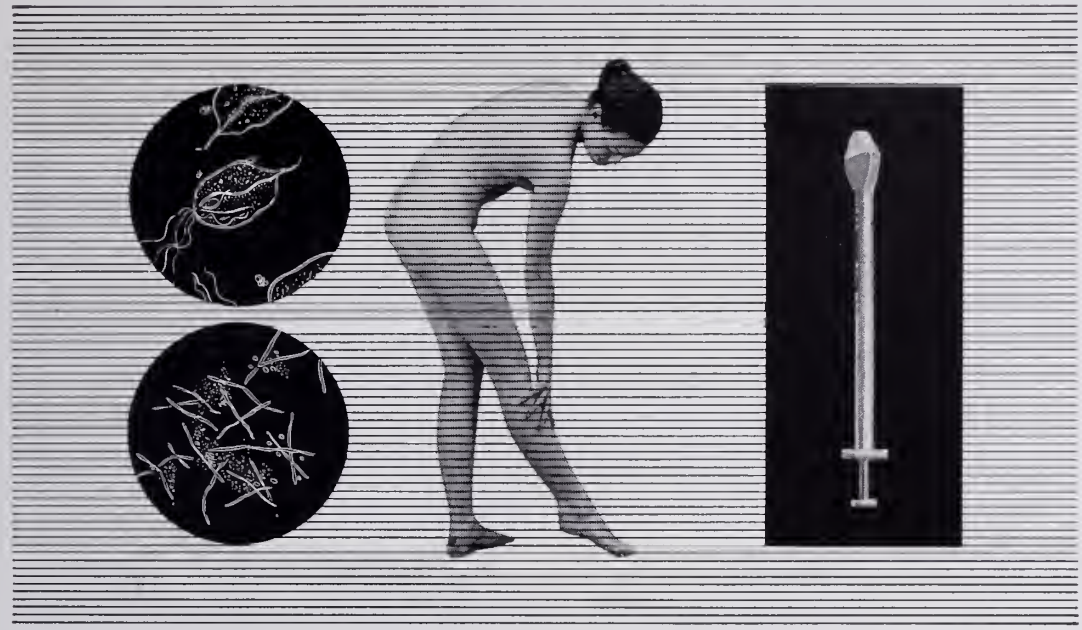
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FOR FLAGELLATE AND FUNGAL VAGINITIS



Floraquin®

Destroys Common Vaginal Pathogens; Rebuilds Normal Bacterial Barrier

Whenever a woman complains of vaginal discharge with pruritus, a trichomonal infection[1] must be suspected. Moniliasis, the second most frequent cause[2] of leukorrhea, often occurs[3] in conjunction with diabetes mellitus, pregnancy and estrogen or broad spectrum antibiotic therapy. Commonly used douches wash away normal acid secretions and protective Döderlein bacilli, thus tending to aggravate the problem.

Floraquin, containing Diodoquin® (diiodohydroxyquin, U.S.P.), eliminates infection and provides boric acid and sugar to restore the acidic pH which favors replacement of pathogens by normal Döderlein bacilli. The danger of recurrence is thus minimized.

Pitt reports[2] consistently good results after daily vaginal insufflation of Floraquin powder for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles.

Intravaginal Applicator for Improved Treatment of Vaginitis—

This smooth, unbreakable, plastic plunger device is designed for simplified insertion of Floraquin tablets by the patient; it places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. A Floraquin applicator is supplied with each box of 50 tablets.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157:*126 (Jan. 8) 1955.

2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25:*182 (Feb.) 1956.

3. Lang, W. R.: Recent Advances in Vaginitis, Philadelphia Med. *51:*1494 (June 15) 1956.

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'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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hay fever
nonseasonal rhinitis
nasopharyngitis
rhinitis
nasal congestion

weed
out
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NASAL SPRAY

METICORTELONE *plus* CHLOR-TRIMETON

unique "Meti" steroid-antihistamine combination

quick nasal clearing—easy breathing within minutes . . . without rebound

shrinks nasal polyps—helps revive sense of smell

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15 cc. plastic squeeze bottle.

Each cc. of METRETON Nasal Spray contains 2 mg. (0.2%) prednisolone acetate and 3 mg. (0.3%) chlorprophenpyridamine gluconate in a non-irritating isotonic vehicle.

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severe hay fever, pollen asthma, urticaria
perennial rhinitis, allergic dermatoses



resistant allergies respond to

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METICORTEN *and* CHLOR-TRIMETON *with Ascorbic Acid*

response without fail by the systemic route

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FIRST—clinically confirmed for better management of psychotic patients

NOW—clinically confirmed as an improved antiemetic agent

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PROMPT, POTENT and LONG-LASTING **ANTIEMETIC ACTIVITY**

Clinical investigators report that in clinical studies*

Post-operatively	After Nitrogen Mustard Therapy	In Chronic Nausea and Vomiting	In Infections, Intra-abdominal Disease, and Carcinomatosis	In Neurosurgical Diagnostic Procedures	In Pregnancy When Vomiting Is Persistent

VESPRIN

- showed potent antiemetic action
- completely relieved nausea and vomiting in small intravenous doses
- showed a prolonged antiemetic effect
- caused little or no pain at injection site
- controlled chronic nausea and vomiting in orally administered doses
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- effectively terminated the hard-to-control nausea and vomiting common to nitrogen mustard therapy
- provided prophylaxis against the nausea and vomiting associated with pneumoencephalography

*Reports to the Squibb Institute for Medical Research

antiemetic dosage: *Intravenous route*—8 mg. average single dose; dosage range 5 to 10 mg.
Intramuscular route—15 mg. average single dose; dosage range 5 to 15 mg.
Oral route—10 to 20 mg. initially, subsequently 10 mg. t.i.d.

supply: *Parenteral Solution*—1 cc. ampuls (20 mg./cc.)
Oral Tablets—10 mg., 25 mg., 50 mg., in bottles of 50 and 500

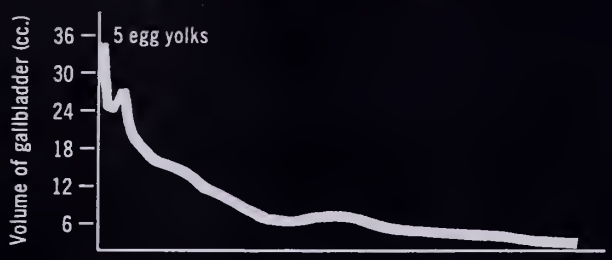
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"EMPTYING" OF GALLBLADDER AFTER FATTY MEAL*



*Adapted from Wright, S.: Applied Physiology, ed. 8, London, Oxford University Press, 1947, p. 734.

What's wrong with the term "emptying of the gallbladder"?

The gallbladder discharges bile by fractional evacuation. It is not emptied completely at any one time even following a fatty meal.

Source—Lichtman, S. S.: Diseases of the Liver, Gallbladder and Bile Ducts, ed. 3, Philadelphia, Lea & Febiger, 1953, vol. 2, p. 1177.

routine physiologic support for "sluggish" older patients

DECHOLIN® one tablet t.i.d.
therapeutic bile

increases bile flow and gallbladder function—combats bile stasis and concentration... helps thin gallbladder contents.

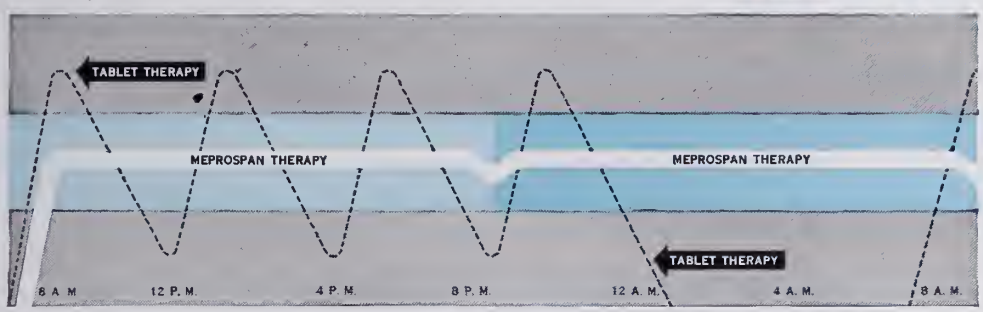
corrects constipation without catharsis—prevents colonic dehydration and hard stools... provides effective physiologic stimulant.

DECHOLIN tablets (dehydrocholic acid, AMES) 3¾ gr. Bottles of 100 and 500.

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Evenly sustain relaxation of mind and muscle 'round the clock



TWO MEPROSPAN CAPSULES IN THE MORNING RELIEVE ANXIETY, TENSION AND SKELETAL MUSCLE SPASM THROUGHOUT THE DAY.

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Meprospan*

MEPROBAMATE IN PROLONGED RELEASE CAPSULES

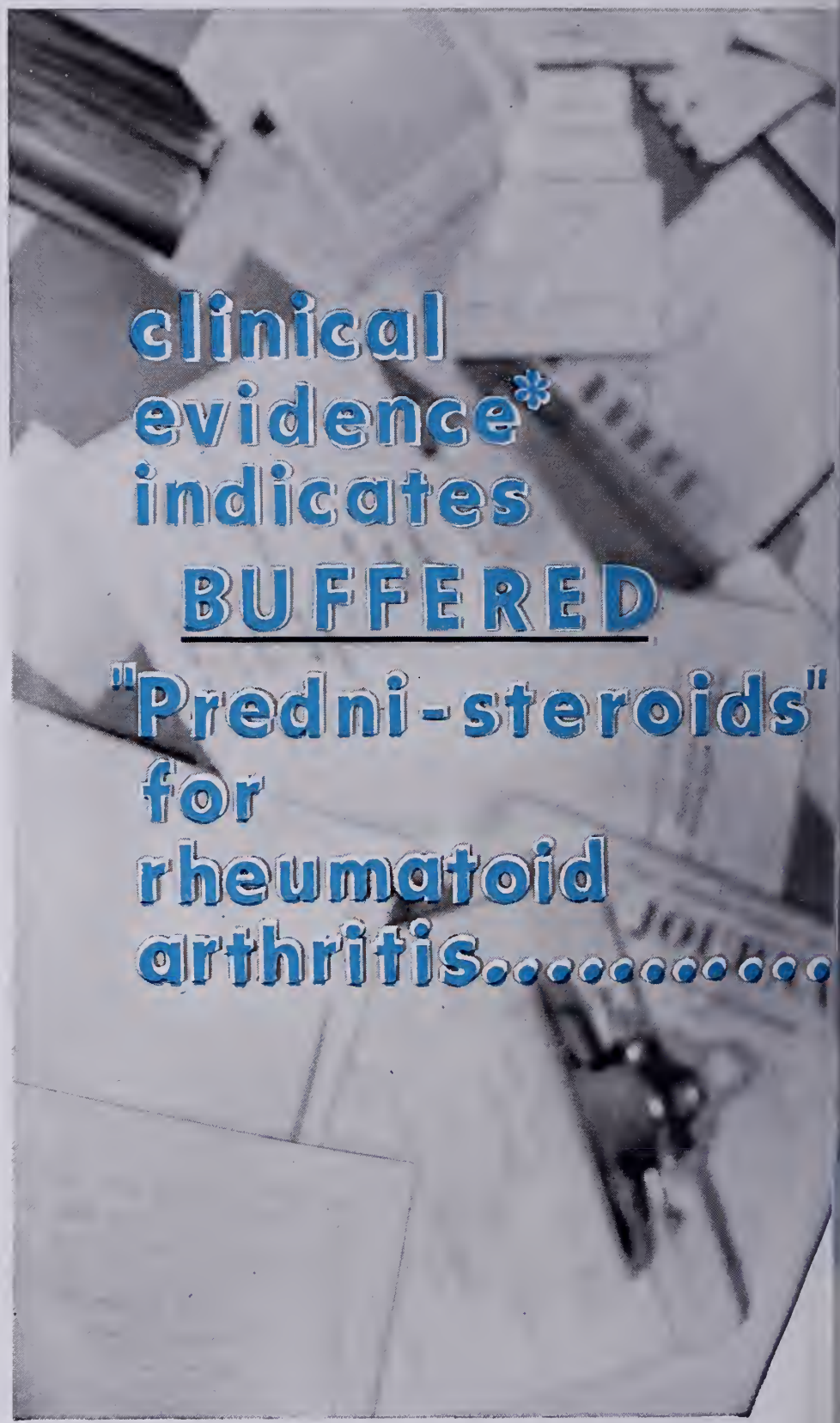
- maintains constant level of relaxation
- minimizes the possibility of side effects
- simplifies patient's dosage schedule

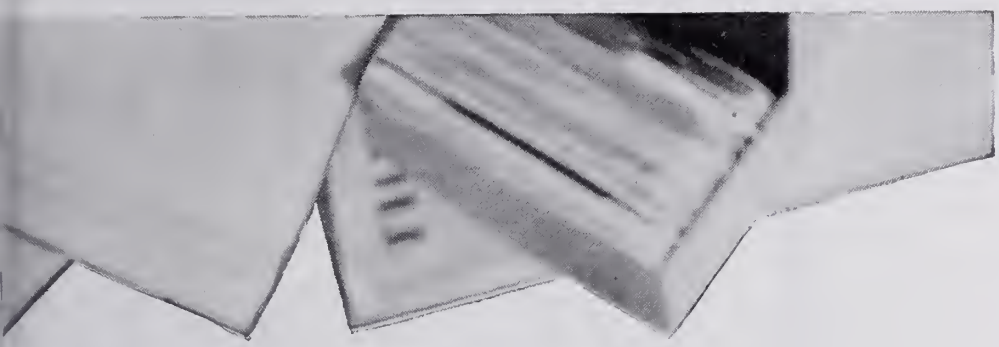
Dosage: Two Meprospan capsules q. 12 h.
Supplied: Bottles of 30 capsules.
Each capsule contains:
Meprobamate (Wallace) .....200 mg.
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indicates
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"Predni-steroids"
for
rheumatoid
arthritis.....



Gastric distress accompanying "predni-steroid" therapy is a definite clinical problem — well documented in a growing body of literature.

iew of the beneficial re- observed when antacids d diets were used concom- ith prednisone and predni- we feel that these measures be employed prophylacti- offset any gastrointestinal cts."—Dordick, J. R. *et al.*: ate J. Med. 57:2049 (June 7.

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: J. A. M. A. 158:459 (June 11) 1955.

One way to make sure that patients receive full benefits of "predni-steroid" therapy plus positive protection against gastric distress is by prescribing CO-DELTRA or CO-HYDELTRA.

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Unusual Antibacterial and Anti-infective Properties. More rapid absorption . . . higher and better sustained plasma concentrations . . . more soluble in acid urine than other sulfonamides . . . freedom from crystalluria and absence of significant accumulation of drug, even in patients with azotemia. [1]

Unprecedented Low Dosage. Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. (1 to 2 tablets) maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides —a notable asset in prolonged therapy. [2]

New Control Over Sulfonamide-sensitive Organisms. KYNEX maintains the prolonged, high tissue concentrations of primary importance in treatment of urinary infections . . . a therapeutic asset toward preventing manifest pyelonephritis as a complication of persistent bacteriuria during pregnancy and puerperium. Maintenance of sterile urine in such patients was accomplished with 1 tablet of KYNEX daily. [3]

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Sulfamethoxypyridazine Lederle



Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

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Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

References: 1. Grieble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49,1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

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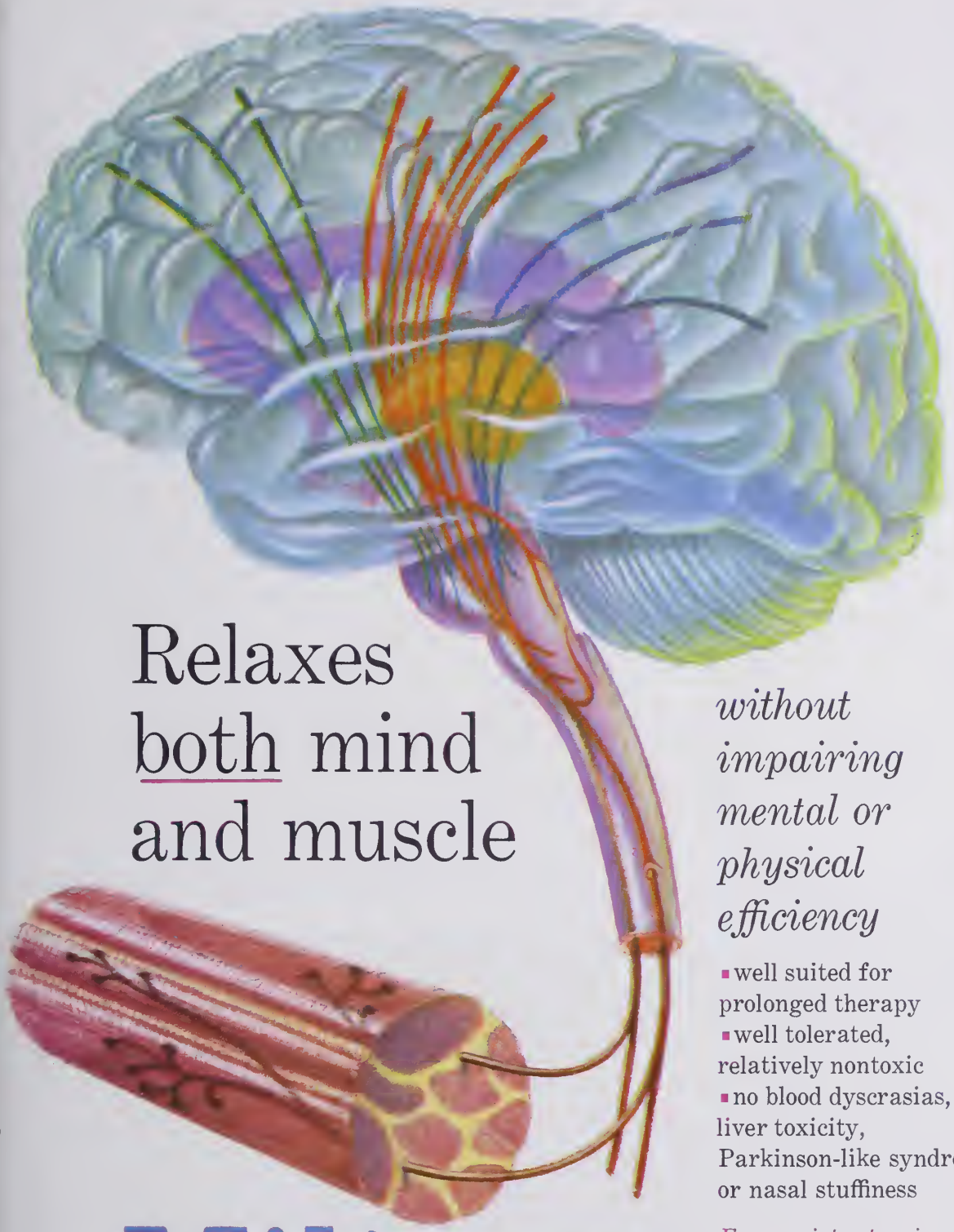
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without impairing mental or physical efficiency

- well suited for prolonged therapy
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- no blood dyscrasias, liver toxicity, Parkinson-like syndrome or nasal stuffiness

For anxiety, tension and muscle spasm in everyday practice.

Supplied:
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400 mg. tablets t.i.d.

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TRANQUILIZER WITH MUSCLE-RELAXANT ACTION



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Because it replaces *half* control with *full* control.

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SUPPLIED: Bottles of 60 tablets.
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Conjugated Estrogens (equine) ..... **0.4 mg.**

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MILTOWN®
A Proven Tranquilizer
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Happy Jeanette, aglow with health, is a Baker's Blue Ribbon Baby.

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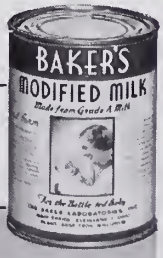
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CONTROLS "SUMMER COMPLAINT"

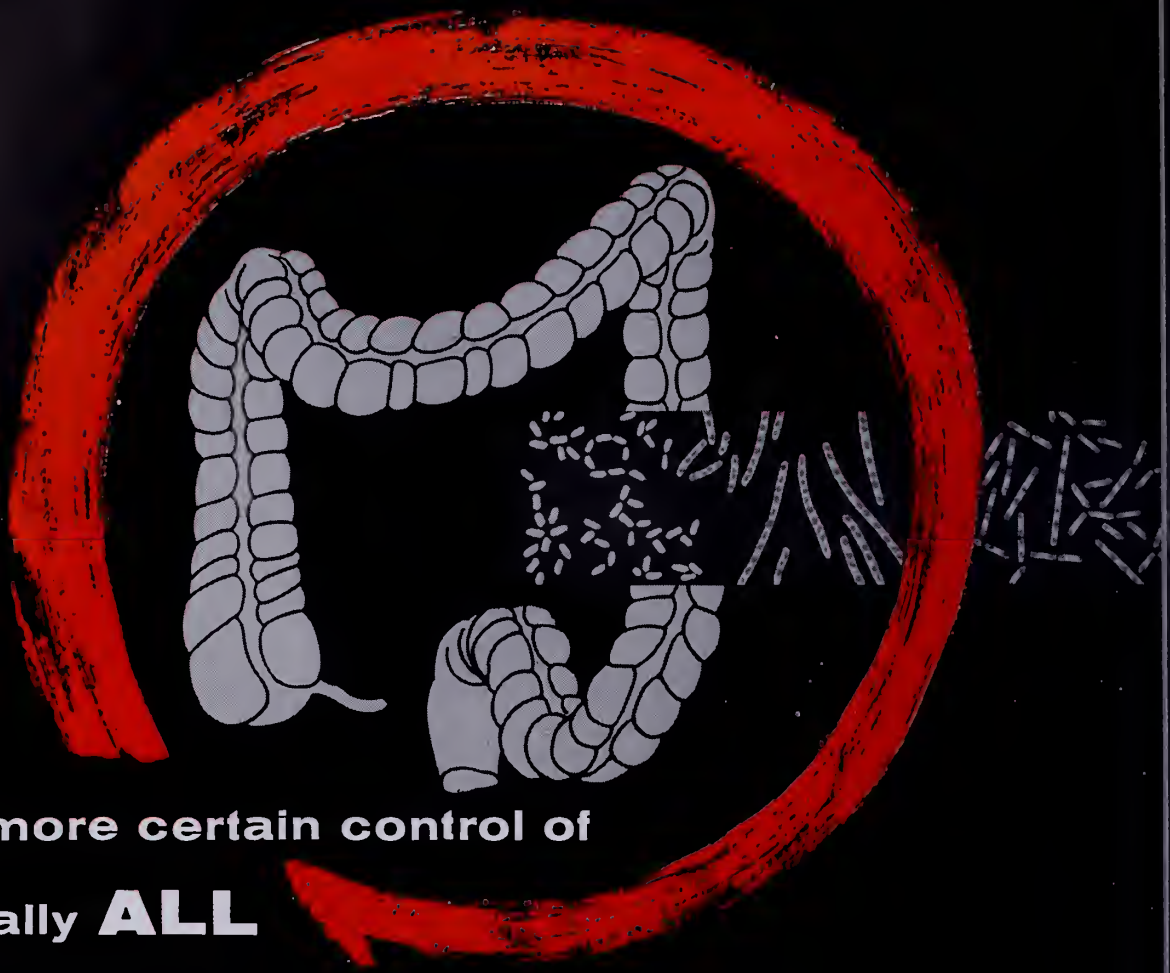
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DONNAGEL WITH NEOMYCIN

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SUPPLY: Bottles of 6 fl. oz.

ALSO AVAILABLE: DONNAGEL, the original formula, for use when the antibiotic component is not indicated. Bottles of 6 fl. oz.

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Pectin (2 gr.)	142.8 mg.
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Hyoscyamine sulfate	0.1037 mg.
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Hyoscine hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

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FOR ESSENTIAL HYPERTENSION

RAUWOLFIA SERPENTINA—used medicinally for centuries in India and Malaya

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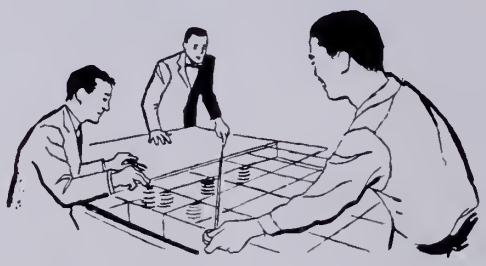
1. **Gradual but sustained reduction of blood pressure**
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Supplied: Bottles of 100 and 500 tablets.

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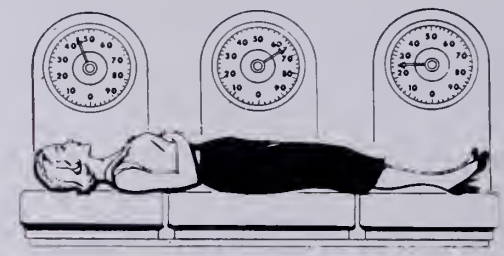
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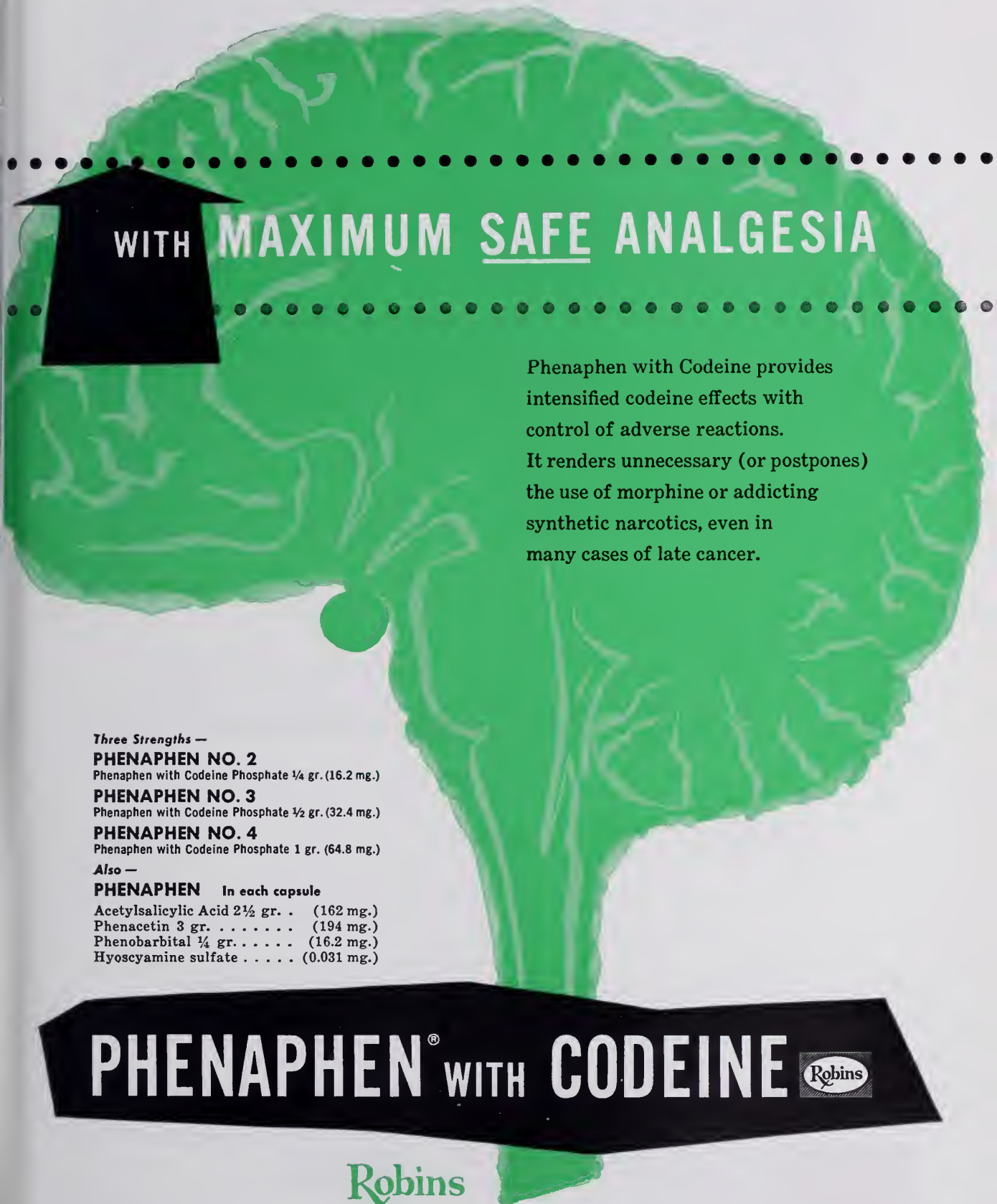


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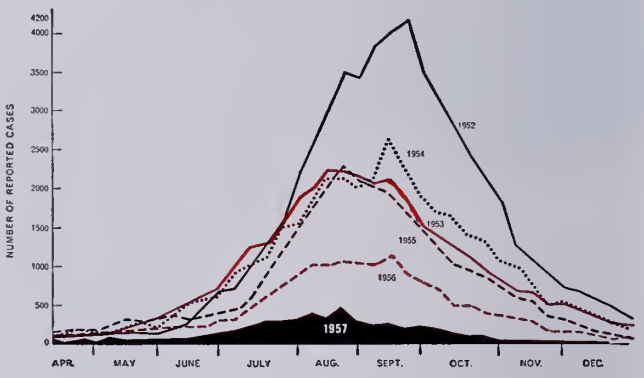
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A MIRACLE IN OUR TIME?

At the last accounting,[1] physicians throughout the country had administered at least one dose of poliomyelitis vaccine to 64 million Americans—all three doses to an estimated 34 million. Undoubtedly, these inoculations have played a major part in the dramatic reduction of paralytic poliomyelitis in this country.



Incidence of polio in the United States, 1952-1957
(data compiled from U.S.P.H.S. reports)

vaccine is plentiful for the job remaining

There are still more than 45 million Americans under forty who have received no vaccine at all and many more who have taken only one or two doses.

As it was phrased in a public statement by the Department of Health, Education, and Welfare:

> *"It will be a tragedy if, simply because of public apathy, vaccine which might prevent paralysis or even death lies on the shelf unused."*[2]

Eli Lilly and Company is prepared to assist you and your local medical society to reach those individuals who still lack full protection. *For information see your Lilly representative.*



1. *J. A. M. A.*, 165:21 (*November 23*), *1957.*
2. *Department of Health, Education, and Welfare: News Release, October 10, 1957.*

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the clinical results are **positive** when

NILEVAR® restores positive nitrogen balance

The anabolic effects of Nilevar are quickly manifest both to the patient and to the attending physician.

When loss of nitrogen delays postsurgical recovery or stalls convalescence after acute illness and in severe burns and trauma, Nilevar has been found to effect these responses:

- **Appetite improves**
- **Weight increases**
- **The patient feels better**
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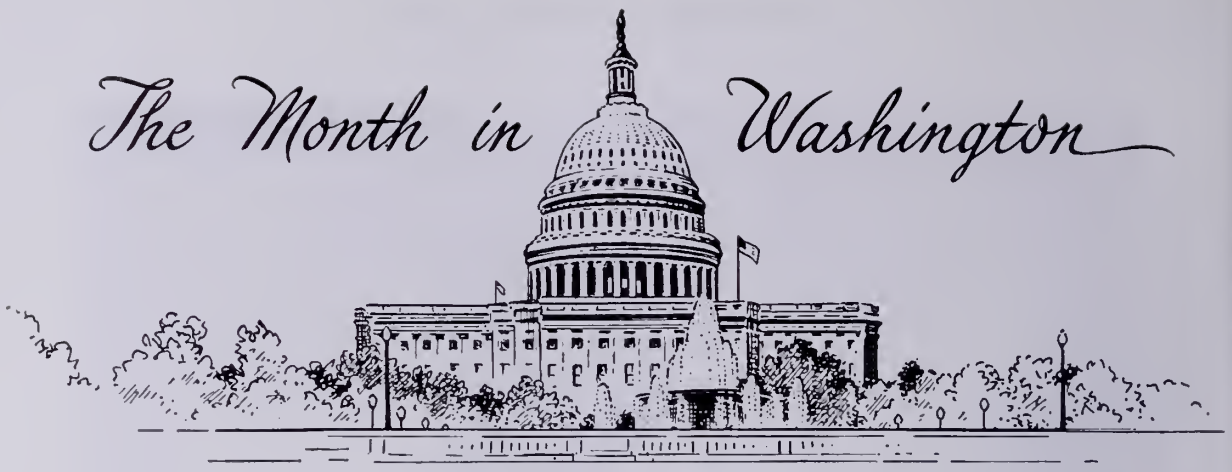
Similarly Nilevar helps correct the "protein catabolic state" associated with prolonged bed rest in carcinomatosis, tuberculosis, anorexia nervosa and other chronic wasting diseases.

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent in appropriate dosage.

Nilevar (brand of norethandrolone) is supplied as tablets of 10 mg. and ampuls (1 cc.) of 25 mg. The dosage of both forms is from 10 to 50 mg. daily.

SEARLE Research in the Service of Medicine.
G. D. SEARLE & CO., CHICAGO 80, ILLINOIS

The Month in Washington



Washington, D. C.—The Hill-Burton program for U. S. grants to states to help build hospitals and other health facilities has run a successful course for almost 12 years. It has never been cut back in scope, and once (in 1954) it was expanded to take in diagnostic-treatment centers, nursing homes, chronic disease hospitals and rehabilitation centers.

On the overall, the U. S. puts up one-third of the money for a state's projects, but the state may give individual projects as much as two-thirds of their costs.

In the 12 years, 3,725 projects have been completed, are under construction or have been approved. They represent a total investment of about $3 billion, just under one-third of it federal money. Included are 156,658 hospital beds, 4,542 nursing-home beds, and almost 1,000 other facilities, such as rehabilitation centers.

Congress, as it has several times in the past, now is being asked to renew the program, which no doubt it will do. Also, the Department of Health, Education, and Welfare and several organizations in the health fields have looked over the 12 years' experience, and want some changes made in the way the program is handled. None of them, however, wants to end it.

The American Medical Association, for example, is suggesting that diagnostic treatment and public health centers be dropped from the program, and that the mandatory emphasis on rural communities also be eliminated. These and other AMA recommendations are the result of a 14-state survey by the Association.

Also, the AMA joins the Department of Health, Education, and Welfare in proposing that emphasis be placed on facilities for the chronically ill and nursing homes, and that states be given more freedom in shifting money among the various categories.

Both the AMA and the AHA want Congress to authorize loans for hospitals and nursing homes, with the AMA recommending that loan guarantees be offered to proprietary as well as nonprofit institutions.

Before Congress are a dozen or more other suggested changes. Several groups want the research fund raised from the present $1.5 million a year to $4 or $5 million, and HEW would like to be able to advance money for planning when this action would hurry construction. HEW also, along with several congressmen and state medical societies, would like to see the eligibility requirements eased so more nonprofit groups can build diagnostic-treatment centers. Another HEW proposal would recognize a rehabilitation center even if it did not furnish psychological, social and vocational evaluation services, as well as medical; now the center has to furnish all four services.

At this writing, indications are that Congress will not allow a slip-up in extending the program, which is scheduled to expire June 30, 1959, even if it has to move along a simple extension bill, then try to work out agreement on all the suggested changes.

Regardless what happens, Hill-Burton is undergoing more examination—friendly but critical—than it has experienced since its birth in 1946.

NOTES

The American Association of Medical Colleges estimates that the country's 85 medical schools will require $275 million for rehabilitation and new construction in the next few years, not including money for research and hospital construction.

* * *

To learn how far our supplies could be stretched in event of nuclear attack, the Office of Defense Mobilization has asked Public Health Service to survey 700 wholesale drug houses, surgical supply firms and chain drug store warehouses for an inventory of their stocks.

* * *

American Medical Association, among other groups, is supporting legislation that would request President Eisenhower to call a 1960 White House Conference on the problems of the aged. However, HEW sees no need for the conference, nor does it favor suggestions that a new bureau be

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No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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The non-narcotic analgesic with the potency of codeine

DARVON (Dextro Propoxyphene Hydrochloride, Lilly) is equally as potent as codeine yet is much better tolerated. Side-effects, such as nausea or constipation, are minimal. You will find 'Darvon' helpful in any condition associated with pain. The usual adult dose is 32 mg. every four hours or 65 mg. every six hours as needed. Available in 32 and 65-mg. pulvules.

DARVON COMPOUND (Dextro Propoxyphene and Acetylsalicylic Acid Compound, Lilly) combines the antipyretic and anti-inflammatory benefits of 'A.S.A. Compound'* with the analgesic properties of 'Darvon.' Thus, it is useful in relieving pain associated with recurrent or chronic disease, such as neuralgia, neuritis, or arthritis, as well as acute pain of traumatic origin. The usual adult dose is 1 or 2 pulvules every six hours as needed.

Each Pulvule 'Darvon Compound' provides:

'Darvon'	*32 mg.*
Acetophenetidin	*162 mg.*
'A.S.A.' (Acetylsalicylic Acid, Lilly)	*227 mg.*
Caffeine	*32.4 mg.*

*'A.S.A. Compound' (Acetylsalicylic Acid and Acetophenetidin Compound, Lilly)

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set up or a commission created to handle the problem.

* * *

After conclusion of hearings, a House subcommittee has under consideration legislation for "bricks-and-mortar" U. S. grants to help medical and dental school finance buildings and purchase of equipment. The money could not be used for general operating expenses.

* * *

Dr. Thomas H. Alphin has resigned as director of AMA's Washington Office to become associate medical director of the Equitable Life Assurance Society at the group's main office in New York. Dr. William J. Kennard, deputy director, has been named acting director of the Washington Office.

* * *

VA is calling for bids on 12 construction projects estimated to cost a total of at least $4.2 million. Locations include Murfreesboro, Tenn.; Tomah, Wis.; Columbia, S. C.; Bay Pines, Fla.; Newington, Conn.; **Iowa City, Iowa**; West Roxbury, Mass.; Rutland Heights, Mass.; Walla Walla, Wash.; Wood, Wis.; Wadsworth, Kans.

ROCKY MOUNTAIN CANCER CONFERENCE

On July 9 and 10, the Colorado State Medical Society and the Colorado Division of the American Cancer Society will sponsor their annual Rocky Mountain Cancer Conference at the Shirley-Savoy Hotel, in Denver. Physicians who are planning vacations at about that time are invited to consider including it in their itineraries. The office of the Conference, 835 Republic Building, Denver 2, will supply lists of Colorado hotels and motels to doctors who wish a holiday in the mountains either before or afterwards.

The faculty is to include Dr. R. H. Chamberlain, a Philadelphia radiologist; Dr. Ian G. MacDonald, a Los Angeles surgeon; Dr. Henry Rappaport, a Chicago pathologist; Dr. Robert J. Samp, a Madison surgeon; Dr. Hugh J. Jewett, a Baltimore urologist; Dr. David A. Karnofsky, a New York City internist; Dr. Norman Miller, an Ann Arbor obstetrician and gynecologist; and Dr. William A. Altmeier, a Cincinnati surgeon.

AAGP members who attend will receive credits from their organization.

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12 or more, each	1.28	1.28	1.10	1.14
80 oz. makes 3 gal.	3.84			3.52
4 or more, each	3.46			3.17
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4 or more, each	4.56	4.56	3.83	4.15

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WOI—Ames, Iowa

Thursday at 1:15 p.m.

"HELP YOURSELF TO HEALTH"

June 5 ..... How to Build a Hospital
June 12 ..... Nursing

"SUPERSTITION OR SCIENCE"

June 19 ..... Magic Touch
June 26 ..... Nutrition Fallacies

WSUI—Iowa City, Iowa

Monday at 3:30 p.m.

"GROWING UP"

June 2 ..... Breaking Away From Home

"HELP YOURSELF TO HEALTH"

June 9 ..... The Self-Help Idea
June 16 ..... Raining Rural Doctors
June 23 .... How Small Towns Can Get a Doctor
June 30 ... How Small Towns Can Keep a Doctor

TELEVISION

KQTV—Fort Dodge, Iowa

Wednesday at 7:00 p.m.

June 4 ..... Chest Surgery
June 11 ..... Anesthesiology and Recovery Room
June 18 ..... Minor Surgery
June 25 ..... Gallbladder Surgery

KCRG-TV—Cedar Rapids, Iowa

Sunday at 1:00 p.m.

June 1 ..... Hip-Pinning
June 8 ..... Acne
June 15 ..... Chest Surgery
June 22 .... Anesthesiology and Recovery Room
June 29 ..... Minor Surgery

KVTV—Sioux City, Iowa

Sunday at 1:00 p.m.

June 1 ..... Sinus
June 8 ..... Head Injuries
June 15 ..... Menopause
June 22 ..... Foot Troubles
June 29 ..... Chest Surgery

The foregoing schedules are subject to change at the discretion of the station managers.



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THE NEW INSURANCE PLAN
TO PAY HOSPITAL AND SURGICAL BILLS
FOR PEOPLE **OVER 65**

In September 1957, Continental Casualty Company announced a hospital-surgical insurance program for senior citizens, completely new and revolutionary in its concept, and introduced for the first time in the state of Iowa.

The unique features of this plan, never before available exclusively for this age group, are:

1. Every Iowa resident 65 or over eligible—no upper age limit.

2. Every applicant accepted regardless of present health or past medical history.

3. Pre-existing conditions, for which applicant has been medically treated or advised, covered after six months—all other conditions covered immediately.

4. No policy can be individually terminated or modified; termination or modification must apply to *all* 65-PLUS policies (Form No. OA14) issued in Iowa.

The medical profession has long been keenly aware of the need for an insurance program of this kind. Many physicians commented favorably on it when it was introduced last year.

The 65-PLUS program will again be offered state-wide in Iowa this fall. Because of the widespread interest indicated by the medical profession, complete details of the program will be mailed to every Iowa physician well in advance of the public announcement.

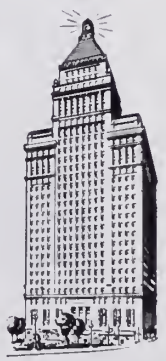
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DEATHS

Dr. Robert Cochrane Crumpton, 71, of Webster City, was found dead at his home on April 14.

Dr. Wentzle Ruml, 90, a Life Member of the Iowa State Medical Society who served as a physician in Cedar Rapids for 70 years, died on April 18, following a long illness.

Dr. Hezekiah Frank Givens, 86, of West Bend, a Life Member of the Iowa State Medical Society, died on April 15 at Mercy Hospital, Fort Dodge. He had practiced in West Bend since 1918.

Dr. Joseph Maurice Kerwick, 66, who had practiced at New Hampton for 30 years, died at St. Joseph Hospital there on April 14, from complications of pneumonia. He had been ill only three or four days.

Dr. Arthur Edwin Merkel, 78, a Life Member of the Iowa State Medical Society, died at his home in Des Moines on May 6, of a heart ailment. He retired from practice two years ago.

Dr. William Harper Thomas, 78, a Life Member of the Iowa State Medical Society who had practiced in McGregor from 1903 until a year ago, died at the Community Hospital there on May 7.

Dr. James Howard Murphy, 51, who had practiced in Des Moines since 1933, died at Mercy Hospital there, on April 15, following a four-months illness.

Dr. James Campbell Murphy, who practiced in Davenport for a number of years prior to World War I, died on April 9 at Aurora, Illinois, where he had worked in association with his brother until he retired in 1952.

Dr. Paul A. Reed, 83, who practiced for 50 years in Iowa City, died at Mercy Hospital there on April 27.

Dr. William Henry Mott, 83, a Life Member of the Iowa State Medical Society who had practiced 54 years in Farmington, died on May 12 at Memorial Hospital, in Keosaqua.

Of course,  *women like "Premarin"*

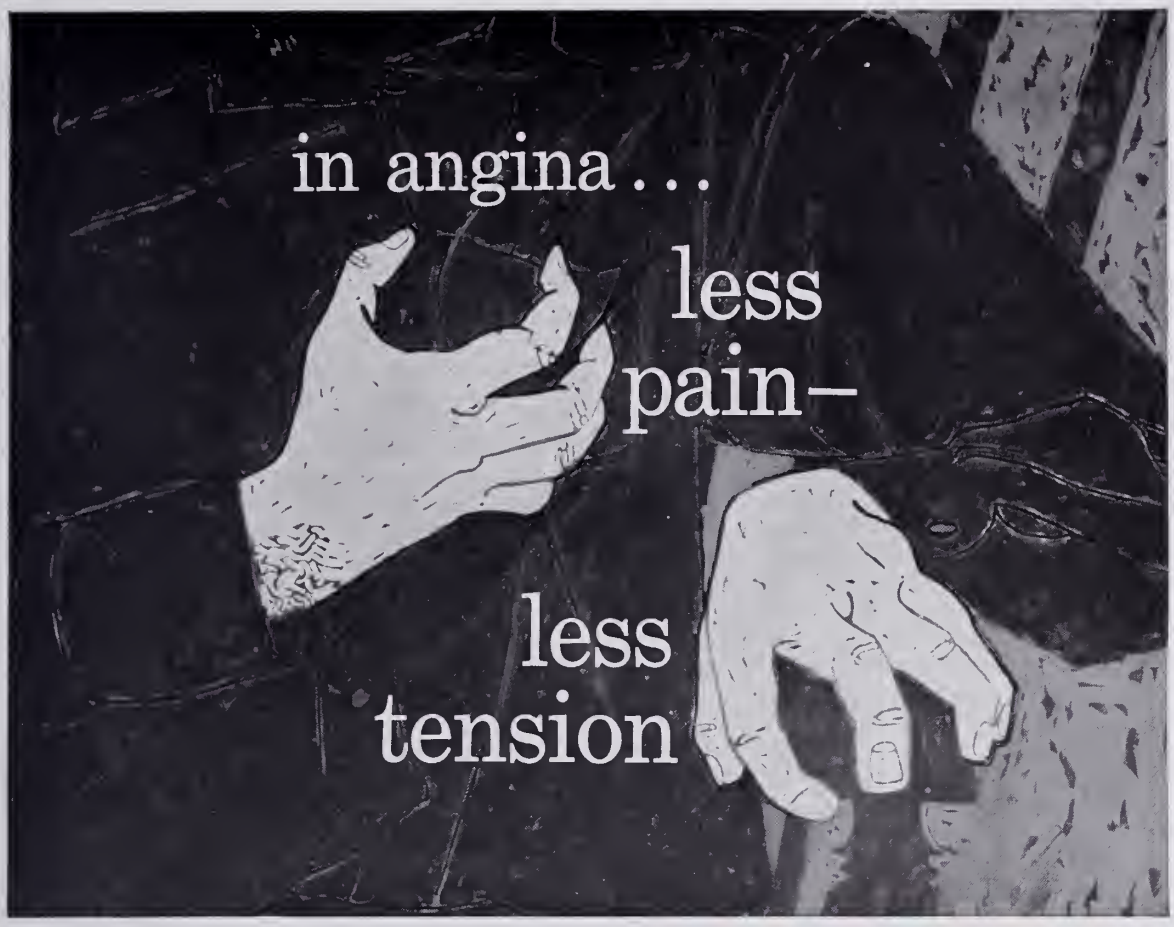
Therapy for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

Doctors, too, like "Premarin," because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen.

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why PETN? *For cardiac effect:* PETN is "... the most effective drug currently available for prolonged prophylactic treatment of angina pectoris."[1] Prevents about 80% of anginal attacks.

why ATARAX? *For ataractic effect:* One of the most effective—and probably the safest—of tranquilizers, ATARAX frees the angina patient of his constant tension and anxiety. Ideal for the on-the-job patient. And ATARAX has a unique advantage in cardiac therapy: it is anti-arrhythmic and non-hypotensive.

why combine the two? *For greater therapeutic success:* In clinical trials, CARTRAX was demonstrably superior to previous therapy, including PETN alone. Specifically, 87% of angina patients did better. They were shown to suffer fewer attacks ... require less nitroglycerin ... have increased tolerance to physical effort ... and be freed of cardiac fixation.

1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

Dosage and Supplied: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100.

CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

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Personals



Fourteen doctors were elected to Life Membership in the Iowa State Medical Society during the Annual Meeting at Des Moines in April. They are: **Dr. Clark W. Rominger,** Waukon; **Dr. George R. Woodhouse,** Vinton; **Dr. Anthony M. Loes,** Dubuque; **Dr. Robert S. Reimers,** Fort Madison; **Dr. Edgar B. Wilcox,** Oskaloosa; **Dr. Gladys Cooper,** Red Oak; **Dr. George H. Keeney,** Mallard; **Dr. Earl D. McClean,** Des Moines; **Dr. Raleigh R. Snyder,** Des Moines; **Dr. Elias B. Howell,** Ottumwa; **Dr. Lester E. Hooper,** Indianola; **Dr. William R. Turner,** Fort Dodge; **Dr. Samuel Kline,** Sioux City; **Dr. Charles P. McHugh,** Sioux City; and **Dr. W. J. Neuzil,** Cedar Rapids.

Eight doctors were elected to Associate Membership: **Drs. Ezra L. Wurtzer,** Mason City; **Nicholas C. Stam,** Mason City; **Harry H. Ennis,** Manchester; **J. Carl Painter,** Dubuque; **John E. Stansbury,** Cedar Rapids; **Ernest G. Kieck,** Cedar Rapids; **Hiram B. Henry,** Des Moines; and **Grace O. Doane,** Des Moines.

Life Memberships are granted to physicians who have practiced medicine for 50 years and have been members of the Society for 30 years. Associate Memberships are granted on the basis of retirement or disability.

During a meeting held at the Wakonda Club, in Des Moines on April 21, **Dr. Louis T. Palumbo,** head of surgery at the Des Moines VA Hospital, was elected president of the Iowa Academy of Surgery, succeeding **Dr. R. T. Tidrick,** head of the Department of Surgery at the S.U.I. College of Medicine. The other new officers include **Dr. Merle Brown,** of Davenport, vice-president; and **Dr. Carl Jacobs,** of Sioux City, secretary-treasurer.

Four physicians were admitted to membership in the organization: **Dr. Louis P. Alt,** Dubuque; **Dr. Arthur W. Devine,** Waterloo; **Dr. Montague S. Lawrence,** Department of Surgery, S.U.I.; and **Dr. John R. Scheibe,** Bloomfield.

Dr. and Mrs. George Crile, of Cleveland, entertained the group with a travelogue entitled "Adventure in the Caribbean."

Dr. Donald J. Erickson, of Rochester, Minnesota, area consultant in physical medicine and rehabilitation for the Veterans Administration and a professor at the Mayo Foundation of the University of Minnesota, was guest speaker at the VA Hospital in Knoxville on April 18.

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HERE IS WHAT YOU WANT

We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

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J. Iowa M. Soc.

Dr. Charles W. Gray, a resident in internal medicine at S.U.I., is the recipient of this year's Walter L. Bierring Award for significant contributions in combating tuberculosis. The presentation was made by **Dr. William Spear**, of Oakdale, the recipient of the 1957 Award, at the annual meeting of the Iowa TB and Health Association, in Des Moines during April.

Dr. Gray was successively a staff physician at the State Sanatorium in Oakdale and medical director of the Sunnyslope Sanatorium in Ottumwa. While at Oakdale, he took part in the introduction of chemotherapy, and encouraged the teaching of TB therapy to medical students. He will leave Iowa shortly to spend his fourth year of residency at the Henry Ford Hospital, in Detroit.

Dr. K. H. McKay, who the May JOURNAL said had begun the practice of surgery in Muscatine, has joined **Dr. George A. Sywassink**, and **Drs. John L. and Robert F. Klein** in that town. Dr. McKay received his M.D. degree from the College of Medicine at S.U.I., interned at the Edward Sparrow Hospital in Lansing, Michigan, and recently completed a four-year residency at the Mayo Clinic.

Dr. H. B. Allen, of Newton, has announced his resignation from the post of plant physician at the Maytag Company, effective July 1. He plans first to tour Europe with his family, and then to practice industrial medicine on the East Coast. Dr. Allen was made a fellow of the Industrial Medical Association at the organization's meeting in Atlantic City on April 16.

His successor at the Maytag Company, **Dr. Robert J. Kaufmann**, arrived in Newton on about May 1. Dr. Kaufmann is a medical graduate of the University of Illinois who for the past eight years has been medical director and hospital administrator for the Hawaiian Agricultural Company.

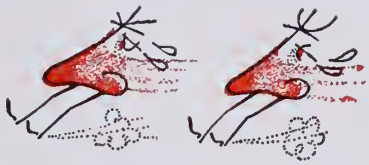
On April 19, **Dr. Richard C. Porter**, of Des Moines, suffered head and nose cuts when his car left the street in a residential area of the city. The damages to his car were estimated at $1,000.

On July 1, when he has completed his internship at Broadlawns-Polk County Hospital, in Des Moines, **Dr. Earl G. Rozebloom** will join **Drs. Paul F. Chesnut, John E. Evans** and **R. W. Carson** in practice at Winterset. Dr. Rozebloom is a 1957 graduate of the S.U.I. College of Medicine.





running noses . . .



caused by pollen allergies

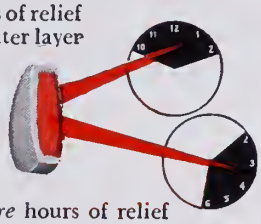
TRIAMINIC stops rhinorrhea, congestion and other distressing symptoms of summer allergies, including hay fever. Running nose, watery eyes and sneezing are best relieved by antihistamine *plus* decongestant action — systemically — with TRIAMINIC.

This new approach frequently succeeds where less complete therapy has failed. It is not enough merely to use histamine antagonists; ideally, therapy must be aimed also at the congestion of the nasal mucosa. Triaminic provides such effective combined therapy in a single timed-release tablet.

TRIAMINIC brings relief in minutes—lasts for hours. Running noses stop, congested noses open—and stay open for 6 to 8 hours.

Triaminic provides around-the-clock freedom from allergic congestion with just one tablet t.i.d. because of the special timed-release design.

first—3 to 4 hours of relief from the outer layer



then—3 to 4 *more* hours of relief from the inner core

Dosage: One tablet in the morning, mid-afternoon and at bedtime. In postnasal drip, one tablet at bedtime is usually sufficient.

Each timed-release TRIAMINIC Tablet contains:

Phenylpropanolamine HCl	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

TRIAMINIC FOR THE PEDIATRIC PATIENT

TRIAMINIC Juvelets*, providing easy-to-swallow half-dosages for the 6- to 12-year-old child, with the timed-release construction for prolonged relief.

TRIAMINIC Syrup, for those children and adults who prefer a liquid medication. Each 5 ml. teaspoonful is equivalent to ¼ Triaminic Tablet or ½ Triaminic Juvelet.

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On April 14 and 15, **Dr. William B. Bean**, head of the Department of Internal Medicine at S.U.I., lectured at the Bowman-Gray School of Medicine, in Winston-Salem, North Carolina, and from April 17 to 23, he conducted teaching conferences at the Georgetown Medical Center, in Washington, D. C.

Dr. Herman J. Smith, of Des Moines, president of the Iowa Heart Association, has announced that "memorial contributions" to his organization for the three months ending March 31 totaled $8,480, compared with $6,392 in the similar portion of 1957. Dr. Smith emphasized that "memorial contributions" are used exclusively to finance research.

The AMA has called attention to a scheme that the state of Utah and the city of Denver have introduced for catching hit-and-run drivers. The law forbids auto repairmen to mend cars that do not carry a police sticker indicating that the owner has reported the accident in which the vehicle was damaged.

At the April 17 meeting of the Page County Medical Society, in Clarinda, **Dr. Al Finleyson**, of Omaha, spoke on nerve injuries.

Eleven doctors have been chosen to constitute the professional advisory committee of the Iowa Society for the Prevention of Blindness, which is currently being organized. They are: **Dr. Arthur H. Downing**, Des Moines, chairman; **Dr. Arthur Wise**, Iowa City, vice-chairman; **Dr. Henry H. Gurau**, Des Moines; **Dr. Gardner Phelps**, Waterloo; **Dr. C. A. Noe**, Cedar Rapids; **Dr. James E. Reeder, Jr.**, Sioux City; **Dr. Frederick Fuerste**, Dubuque; **Dr. Harry W. Alcorn**, Mason City; **Dr. Devoe O. Bovenmeyer**, Ottumwa; **Dr. Alson E. Braley**, head of the S.U.I. Department of Ophthalmology; and **Dr. Edward Anderson**, Davenport. The officers of the Iowa Committee are **Mrs. Elmer Taylor**, of Traer, chairman; **Mrs. Joseph Whylie**, of Des Moines, secretary; and **Mr. Scott C. Pidgeon**, of Des Moines, treasurer.

Dr. W. L. Randall, of Hampton, underwent major surgery in Rochester, Minnesota, on April 18.

Dr. Eugene Johnson, a native of Madrid, Iowa, and a 1956 graduate of the S.U.I. College of Medicine who is completing a residency in Tacoma, will join **Drs. Don F. Rodawig** and **Phillip A. Scott** in practice at Spirit Lake on July 1.

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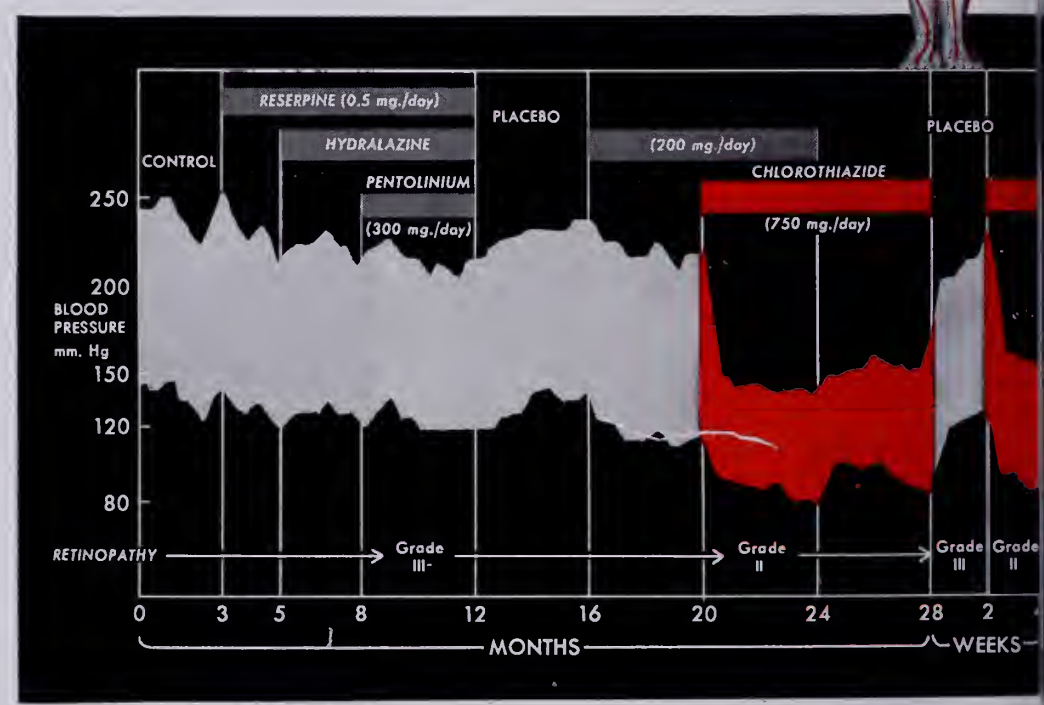
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."



Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 19

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2 **ADJUST DOSAGE OF OTHER AGENTS.** The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be immediately reduced by as much as 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 **ADJUST DOSAGE OF ALL MEDICATION.** The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

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Dr. Carlton B. Lake, who has recently been a member of the medical staff at the Army Hospital in Ft. Benning, Georgia, has announced his intention of opening a medical practice shortly in Cedar Rapids.

During the final meeting of the House of Delegates at the ISMS Annual Meeting, in April, **Dr. John Billingsley**, of Newton, was chosen as president-elect; **Dr. H. E. Farnsworth**, of Storm Lake, was made vice-president; and **Dr. C. H. Flynn**, of Clarinda, was made a member of the Board of Trustees. **Dr. C. V. Edwards, Sr.**, of Council Bluffs, was reelected speaker, and **Dr. H. W. Morgan**, of Mason City, was named vice-speaker. The newly elected or reelected councilors are **Drs. R. M. Dahlquist**, of Decorah; **M. A. Blackstone**, of Sioux City; **Cecil Seibert**, of Waterloo; and **L. V. Larsen**, of Harlan.

Dr. F. C. Coleman, of Des Moines, and **Dr. R. N. Larimer**, of Sioux City, were chosen as delegates to the AMA, and **Dr. H. W. Mathiasen**, of Council Bluffs, and **Dr. C. H. Stark**, of Cedar Rapids, were chosen as alternate delegates.

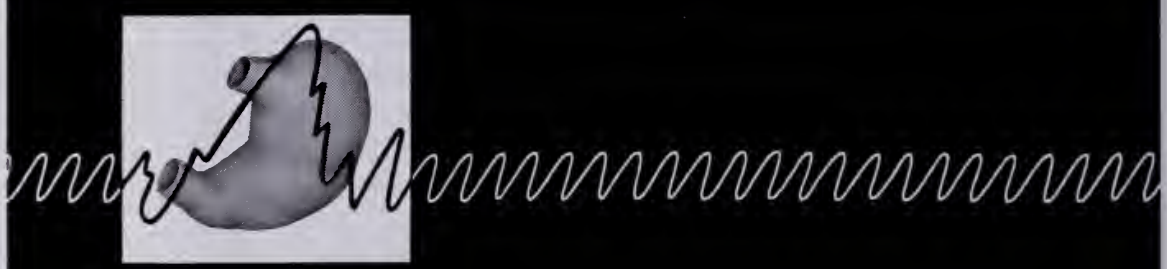
In a letter to the Polk County Board of Supervisors early in May, **Mr. E. M. Kingery**, executive secretary of the County Medical Society in Des Moines, called attention to the fact that during February the charges made by doctors of medicine for attending indigents averaged $5.63 per patient, whereas those made by osteopaths averaged $20 per patient. The M.D.'s, he pointed out, made an average of 1.4 calls per patient, and the osteopaths an average of 3.66. The Board agreed to hold a conference with representatives of both groups, and also directed its budget officer to investigate the matter.

Drs. D. K. Haggar and **E. M. Eneboe**, of Hawarden, dissolved their partnership as of May 1, but both will continue practicing there.

Dr. E. Thomas Scales, of Des Moines, currently the chief of staff, announced recently that the arthritis clinic at Broadlawns-Polk County Hospital will reopen, for one day per week, on July 1, in consequence of an arrangement under which the Iowa Chapter of the Arthritis & Rheumatism Foundation will pay the salary of the physician who operates it. The clinic was discontinued a few months ago when its supervisor, **Dr. Clyde R. Bradford**, became ill.

On May 7, **Dr. Fred Sternagel**, of West Des Moines, was a featured speaker at a meeting of the Industrial Safety Association of Iowa, at the

for "the butterfly stomach"

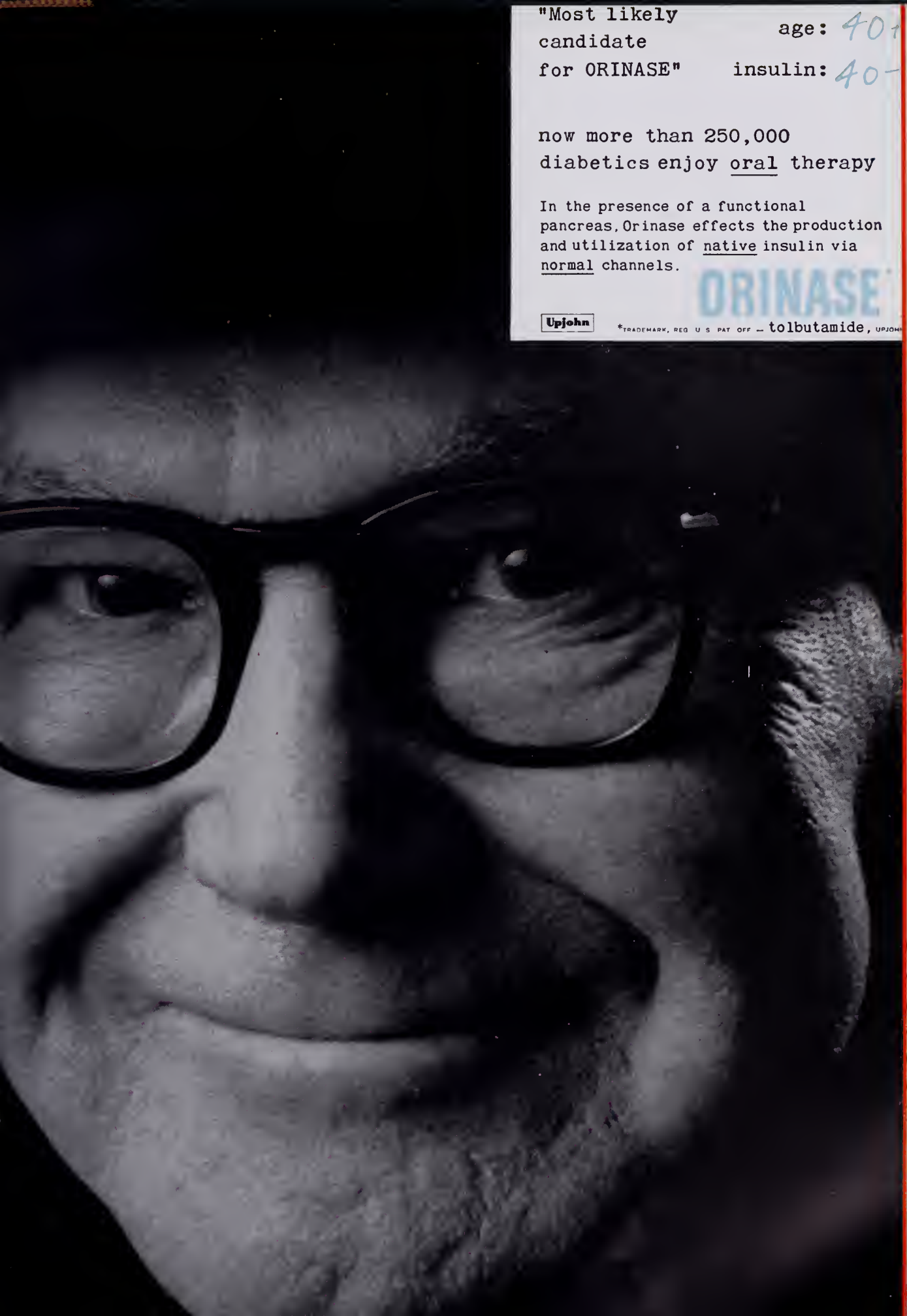


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- **Highly potent and long acting.**[2,3,4,6,7,8]
- **Relatively free of adverse side effects.**[1,2,3,6]
- **In ordinary dosage does not reduce normal muscle strength or reflex activity.**[6]

Summary of four published clinical

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CONDITION	P
STUDY 1[1] Skeletal muscle spasm secondary to acute trauma	
STUDY 2[2] Herniated disc Ligamentous strains Torticollis Whiplash injury Contusions, fractures, and muscle soreness due to accidents	
STUDY 3[5] Herniated disc Acute fibromyositis Torticollis	
STUDY 4[6] Pyramidal tract and acute myalgic disorders	
TOTALS	



ITE SKELETAL MUSCLE SPASM[1,2,5,6]

	RESPONSE		
rked"	*moderate*	*slight*	*none*
6	6	1	—
unced"			
5	13	—	1
4	4	—	—
3	—	—	—
2	1	—	—
3	2	—	—
llent"			
6	2	—	—
8	—	—	—
—	—	1	—
ficant"			
7	—	2	1
4	28	4	2
.3%)	(20.3%)		

Comments on Robaxin by investigators

THE JOURNAL
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL
American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
American Medical Association

"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]

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References: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B.: Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

Robins

Sheraton-Montrose Hotel, in Cedar Rapids. In reporting plans for the meeting, the CEDAR RAPIDS GAZETTE gave Dr. Sternagel credit for having been "instrumental in establishing safety programs in several plants." He is the immediate past-president of the Iowa State Medical Society.

Dr. Clyde G. Nicholson, who has served as admitting officer at the Des Moines VA Hospital for 12 years, was transferred to the VA installation at Knoxville late in April.

Open house was held on Sunday, May 4, at a new clinic building just finished for **Drs. Robert C. Eaton, Charles P. Hawkins, Robert F. McCool, Richard Smith** and **Richard A. Young,** in Clarion.

On May 6, the following Oskaloosa physicians were elected officers of the medical staff at the Mahaska County Hospital: **Dr. G. S. Atkinson,** chief; **Dr. H. C. Bos,** vice-chief; and **Dr. Sidney Smith,** secretary.

On May 15, the Woodbury County Medical Society and the Inter-state Veterinary Medical Association held a joint meeting at the Mayfair Hotel in Sioux City. The topic for discussion was leptospirosis, and the principal speakers were **F. H. Top, M.D.,** head of the Department of Hygiene and Preventive Medicine at the S.U.I. College of Medicine; **Charles D. Cox, Ph.D.,** chairman of the Department of Microbiology and Public Health at the University of South Dakota; **S. H. McNutt, D.V.M.,** chairman of the Department of Veterinary Sciences at the University of Wisconsin; and **Paul Bennett, D.V.M.,** head of the Veterinary Diagnostic Laboratory at Iowa State College.

At a public forum sponsored by the Iowa Division of the American Cancer Society in Anamosa on April 18, the panel consisted of **Drs. Rex Weland, Ralph Hunting, James Prouty** and **Stewart McQuiston,** of Cedar Rapids, and **Drs. A. P. Randall** and **Gerald Brown,** of Anamosa.

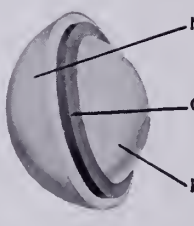
Dr. W. K. Dankle, an S.U.I. medical graduate who recently returned from military service in the Panama Canal Zone, has announced his intention of joining **Drs. P. A. Nierling** and **C. A. Field** in practice at Cresco.

Drs. C. J. Lohmann, Theodore Mazur and **Jesse L. Saar** have acquired land and made plans for a new medical office building in Burlington.

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1. Weinberg, A., and Werner, W. E. F.: Am. Pract. & Digest Treat. *6*:580 (April) 1955.
2. Codling, J. W., and Lowden, R. J.: Northwest Med. *57*:331 (March) 1958.



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Dr. Kenneth Cross, head of pathology at the VA Hospital in Iowa City, was reelected president of the Iowa Association of Pathologists at the organization's annual meeting at Des Moines in April.

Dr. George C. Scanlan, who has practiced at DeWitt for many years, excepting for an interval four or more years ago, moved to Clinton on May 1.

At the sessions of the Iowa Society of Anesthesiologists which took place in Des Moines at the time of the ISMS Annual Meeting, **Dr. Don Koser,** of Cherokee, became president of the organization. **Dr. Charles Manthey,** of Waterloo, was chosen as president-elect, and **Dr. R. S. Jaggard,** of Oelwein, was made secretary-treasurer. **Dr. M. G. Beddoes,** of Waterloo, was reelected for a three-year term as a director of the organization's Iowa-Nebraska-South Dakota district.

Dr. C. Herbert Brush, of Shenandoah, was hospitalized on April 15, after being taken ill at his office.

The program of the Iowa-Nebraska Medical Assembly, at Council Bluffs on May 1, was a symposium on lung injuries and diseases, and the speakers were **Dr. Orval Withers,** associate clinical professor of medicine at the University of Kansas; **Dr. C. Rollins Hanlon,** head of surgery at St. Louis University; **Dr. Robert R. Shaw,** professor of thoracic surgery at the Southwestern Medical School, Dallas; and **Dr. Maurice S. Segal,** clinical professor of medicine at the Tufts University Medical School, Boston.

The arrangements committee included **Drs. M. H. Bierman, Urban J. Collignon, C. V. Edwards, Jr., R. B. Leander, M. P. Margules, G. L. Neligh, Jr., F. H. Richardson, I. Sternhill** and **D. D. Warden,** all of Council Bluffs. About 125 doctors attended the sessions.

Medical Associates, of Dubuque, has announced plans for a $300,000 addition to their clinic building. The new part of the structure, like the existing one, will consist of two floors and a basement. The group consists of between 25 and 30 physicians.

On April 9, **Mrs. Elizabeth Parker,** administrator of Broadlawns-Polk County Hospital, announced that the three-year tuition at the nursing school there will be raised from $786 to $886. One reason for the increase, she said, is that accreditation of the school by the National League

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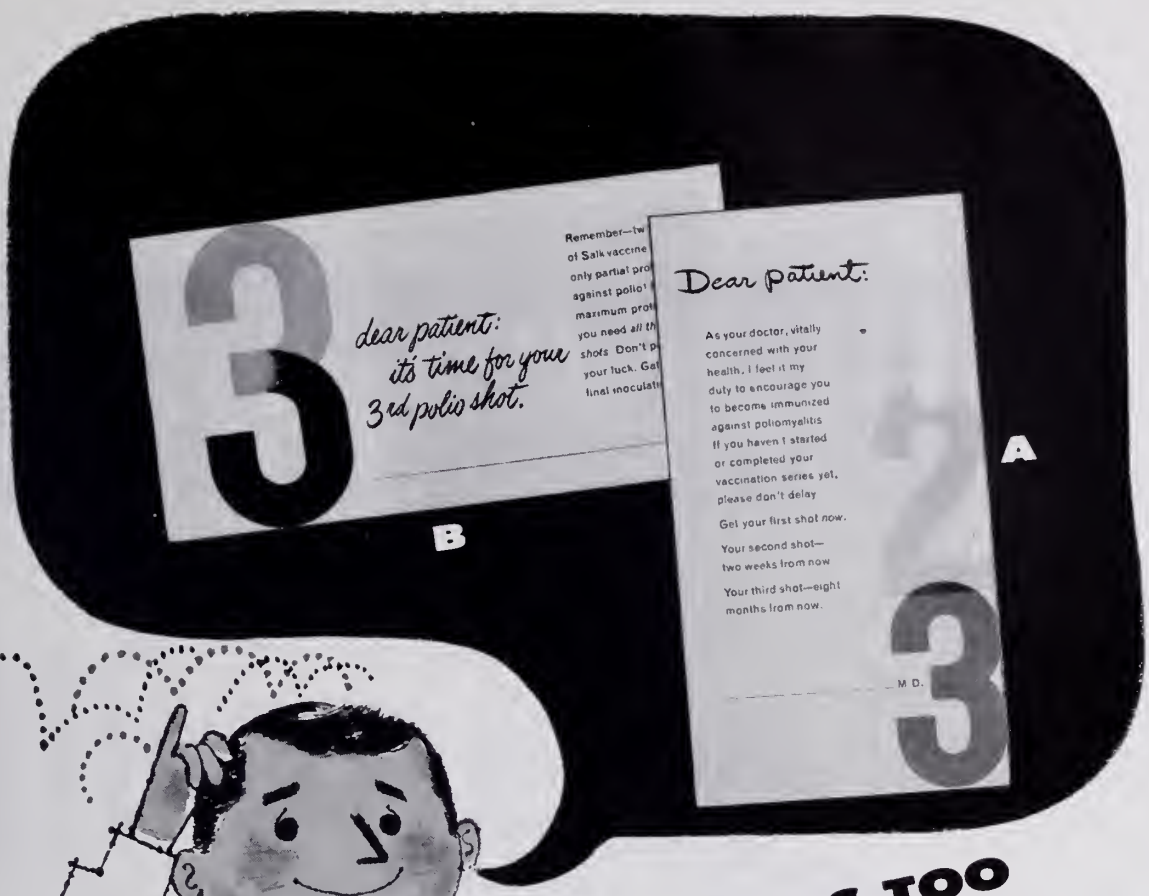
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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

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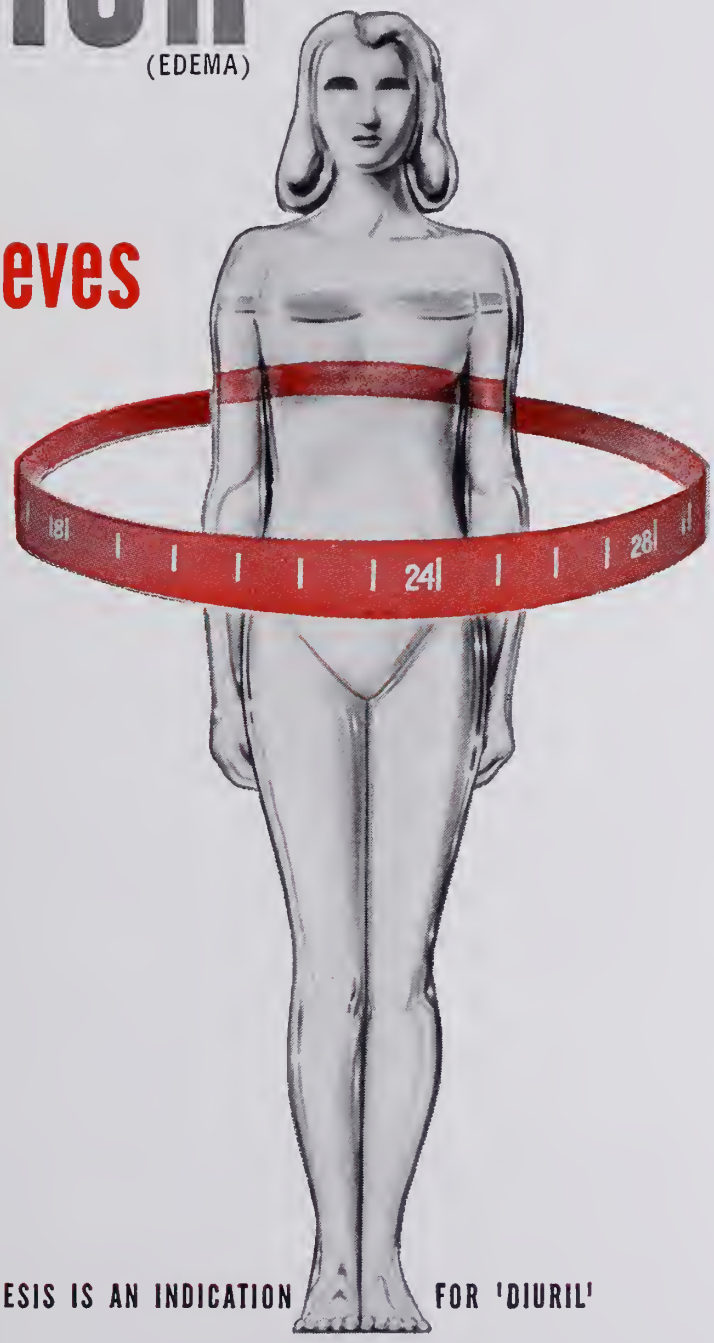
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At the annual meeting of the Iowa Public Health Association, in Des Moines on April 10, **Dr. R. B. McAllister,** of Washington, Iowa, assumed the presidency; **Dr. S. P. Leinbach,** of Belmond, was chosen president-elect; **Thelma Luther, R.N.,** of the Nursing Division, Iowa State Department of Health, vice-president; and **Miss Mary Wombacher,** of the Certification Division, Iowa State Department of Health, secretary-treasurer.

A committee of 100, headed by **Dr. F. H. Top,** of S.U.I., was established to survey health problems in Iowa that are not being studied by other groups.

Dr. Lois Boulware, an assistant professor of hygiene and preventive medicine at the S.U.I. College of Medicine, was one of five graduates whom Culver-Stockton College, in Canton, Missouri, chose to honor at its first Alumni Recognition Day, on April 5.

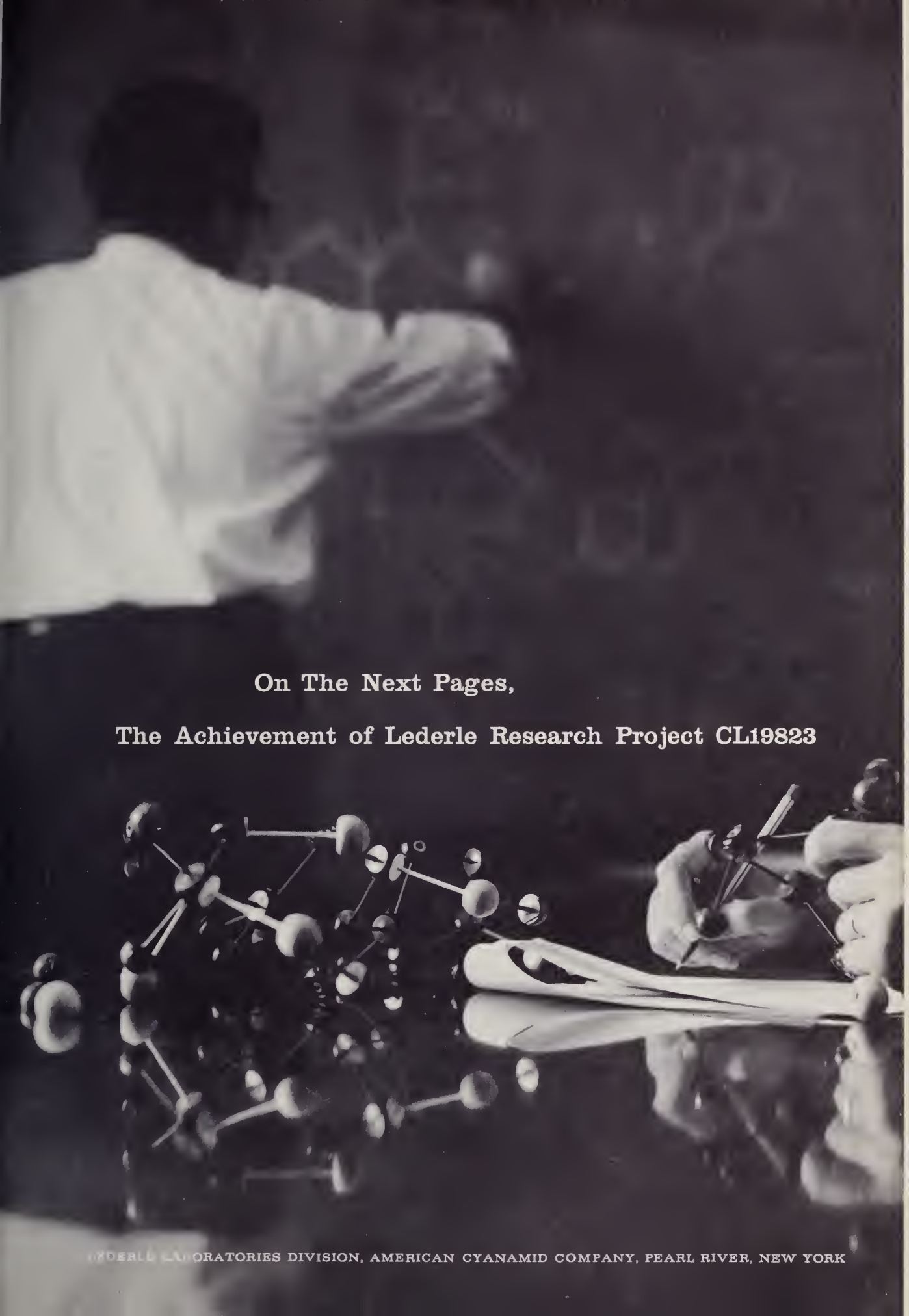
Dr. J. R. Dewey, of Schaller, secretary of the Iowa Division of the American Cancer Society, represented that organization in Washington, D. C., on April 5 and 6 at the Cured Cancer Cases Congress. Part of the program took place at the White House.

At the meeting of the Fayette County Medical Society held at Hotel Mealy, in Oelwein on April 8, **Dr. W. B. Henderson** and **Dr. A. F. Grandinetti** reported on the AAGP meeting held in Dallas, and **Dr. D. J. Ottilie** gave a résumé of the sessions of Mediclinics of Minnesota, held in Ft. Lauderdale. Eleven physicians were present.

In a letter addressed to his firm's Ottumwa employees and to physicians and hospital administrators on April 11, **Mr. W. W. McCallum,** president of the Morrell Company, a meat packer, declared that the cost of medical and hospital benefits to Ottumwa workers and their dependents this year will exceed $900,000—almost double the amount required to provide similar care for groups of like size elsewhere in the packing industry.

Dr. E. B. Grossmann, of Orange City, and **Dr. C. B. Murphy,** of Alton, president and secretary, respectively, of the Sioux County Medical Society, appeared before the County Board of Supervisors early in April to ask for a revision in the fees paid to doctors for the care of indigent patients. No changes have been made in the schedule since 1947.

(More personals after 12-page insert)



On The Next Pages,

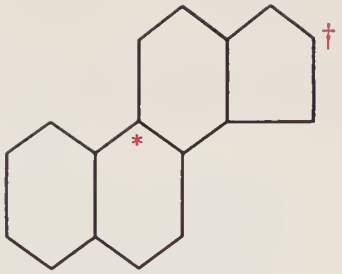
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- **a new high** in anti-inflammatory effects with lower dosage (averages 1/3 less than prednisone)
- **a new low** in the collateral hormonal effects associated with all previous corticosteroids
  - No sodium or water retention
  - No potassium loss
  - No interference with psychic equilibrium
  - Low incidence of peptic ulcer and osteoporosis

Biological Effects of Aristocort

with particular emphasis on:

Kidney function

Animal studies on ARISTOCORT[1] have not demonstrated any interference with creatinine or urea clearance. Autopsy surveys of organs of animals on prolonged study of this medication have shown no renal damage.

Sodium and water

ARISTOCORT produced an increase of 230 per cent of water diuresis and 145 per cent sodium excretion when compared to control animals.[1] Metabolic balance studies in man revealed an average negative sodium balance of 0.8 Gm. per day throughout a 12-day period on a dosage of 30 mg. per day.[2] Additional balance studies showed actual sodium loss when ARISTOCORT was given in doses of 12 mg. daily.[3] Other investigators observed significant losses of sodium and water during balance studies and that those patients with edema from some older corticosteroids lost it when transferred to ARISTOCORT.[4,5] In two studies of various rheumatic disorders (194 cases) on prolonged treatment, sodium and water retention was not observed in a single case.[6,7]

Potassium and chlorides

There was no active excretion of potassium or chloride ions in animals given maintenance doses of ARISTOCORT 25 times that found to be clinically effective.[1] Potassium balance studies in humans[2,3] revealed that negative balance did not occur even with doses somewhat higher than those employed for prolonged therapy in rheumatoid arthritis. Hypokalemia, hyperkalemia or hypochloremia did not occur, when tested, in 194 patients with rheumatoid arthritis treated for up to ten and one-half months.[6,7]

Calcium and phosphorus

Phosphate excretion in animals[1] was not changed from normal even with amounts 25 times greater (by body weight) than those known to be clinically effective. Human metabolic balance studies[3] demonstrated that no change in calcium excretion occurred on dosages usually employed clinically when the compound is administered for its anti-inflammatory effect. Even at a dosage level twice this, slight negative balance appeared only during a short period.

Protein and nitrogen balance

Positive nitrogen balance was maintained during a human metabolic study on maintenance dosage of 12 mg. per day.[3] At dosages two to three times normal levels, positive balance was maintained except for occasional short periods in metabolic studies of several weeks' duration.[2,3]

There was always a tendency for normalization of the A/G ratio and elevation of blood albumin when ARISTOCORT was used in treating the nephrotic syndrome.[8]



Liver glycogen deposition and inflammatory processes

An intimate correlation exists between the ability of a corticosteroid to cause deposition of glycogen in the liver and its capacity to ameliorate inflammatory processes.

In animal liver glycogen studies, relative potencies of ARISTOCORT over cortisone of up to 40 to 1 have been observed. Compared to ARISTOCORT, five to 12 times the amount of prednisone is required to produce varying but equal amounts of glycogen deposition in the liver.[1]

Most patients show normal fasting blood sugars on ARISTOCORT. Diabetic patients on ARISTOCORT may require increased insulin dosage, and occasional latent diabetics may develop the overt disease.

Anti-inflammatory potency of ARISTOCORT was determined by both the asbestos pellet[1] and cottonball[9] tests. It was found to be nine to 10 times more effective than hydrocortisone in this respect.

Gastric acidity and pepsin

The precise mode of ulcerogenesis during treatment with corticosteroids is not known. There is much experimental evidence for believing this may be related to the tendency of these agents to increase gastric pepsin and acidity—and this cannot be abolished by vagotomy, anticholinergic drugs or gastric antral resection.[10] Clinical studies[11] of patients on ARISTOCORT revealed that uropepsin excretion is not elevated. Further, their basal acidity and gastric response to histamine stimulation were within normal limits.

Central nervous system

The tendency of corticosteroids to produce euphoria, nervousness, mental instability, occasional convulsions and psychosis is well known.[12] The mechanism underlying these disturbances is not well understood.

ARISTOCORT, on the contrary, does not produce a false sense of well being, insomnia or tension except in rare instances. In the treatment of 824 patients, for up to one year, not a single case of psychosis has been produced. In general, it appears to maintain psychic equilibrium without producing cerebral stimulation or depression.

Bibliography

1. Experimental Therapeutics Section, Lederle Laboratories. To be published. 2. Bunim, J. J., Whedon, G., and Black, R. L.: Personal Communication. 3. Hellman, L., Zumoff, B., Schwartz, M. K., Gallagher, T. F., Berntsen, C. A., and Freyberg, R. H.: Antirheumatic and Metabolic Effects of a New Synthetic Steroid, paper quoted in Bull. Rheumat. Dis. 7: 130, 1957. 4. Spies, T. D.: South. M. J. 50: 216, (Feb.) 1957. 5. Freyberg, R. H.: Personal Communication. 6. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at the International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 7. Hartung, E. F.: To be published. 8. Hellman, L., Zumoff, B., Kretschmer, N. and Kramer, B.: Personal Communication. 9. Dorfman, R. I., and Dorfman, A. S.: Personal Communication. 10. Gray, S. J., Ramsey, C. G., Villarreal, R., and Krakauer, L. J.: Edited by H. Selye and G. Heuser in: Fifth Annual Report on Stress, 1955-56. M.D. Publications, Inc., New York, 1956, p. 138. 11. Dubois, E. L.: Personal Communication. 12. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957.

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The Promise of Aristocort in Reduction of Side Effects

It is axiomatic to affirm that the undesirable collateral hormone effects of corticosteroids increase in frequency and severity the higher the dosage and the longer used.

It has also become well recognized that the most serious of the major side effects from long-term corticosteroid treatment are peptic ulcers, osteoporosis with fracture, drug psychosis and euphoria, and sodium and water retention leading often to general tissue edema and hypertension.

It is significant that of the close to 400 patients on the lower dosage schedules found effective in bronchial asthma and dermatologic conditions, only 1 case of peptic ulceration has developed. No other of the above side effects have been observed even though ARISTOCORT was administered continuously to them for periods as long as one year.

The treatment of rheumatoid arthritis with steroids appears to result in the highest incidence of side effects. For this reason, the side effects associated with ARISTOCORT therapy in 292 patients with rheumatoid arthritis are reported below.

Peptic Ulcer

The occurrence of peptic ulcer in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is approximately 1 per cent (2 of the 3 occurred in patients transferred from prednisone). In the remaining 532 cases recently analyzed, only one ulcer has been discovered in a patient who apparently had no ulcer when he was changed from another steroid.

Osteoporosis and Compression Fractures

The occurrence of osteoporosis with compression fracture in 292 patients with rheumatoid arthritis treated continuously for up to one year with ARISTOCORT is 0.33 per cent (1 case[1]). Although these results are encouraging, determination of the true incidence of osteoporosis will have to await the passage of more time.

Euphoria and Psychosis

The euphoria so commonly produced by all previous corticosteroids has seemed a most desirable attribute to patients. In penalty, however, they have often later to pay for this by mental disturbances, varying from mild and transitory to severe depression and psychosis,[2] and toxic syndromes producing even convulsions and death.[3]

Since the onset of these complications is not directly related to duration of steroid administration,[4] the fact that not one case of psychosis occurred in 824 patients treated with ARISTOCORT, is most encouraging.

Sodium Retention—Hypertension-Potassium Depletion

When 17 patients were changed from prednisone to ARISTOCORT, 11 rapidly lost weight although only one had had visible edema.[5] Sodium and water retention, hypokalemia or hyperkalemia and steroid hypertension did not appear in 194 rheumatoid arthritis patients treated with ARISTOCORT.[1,6]

The interrelation between blood and body sodium, and steroid hypertension has long been generally appreciated.[7,8] Except in rare instances, or when unusually high doses are used (e.g., leukemia), the problem of edema and hypertension caused by sodium and water retention, has been eliminated with ARISTOCORT.

Minor Side Effects

Collateral hormonal effects of less serious consequence occurred with approximately the same frequency as with the older corticosteroids.[1] These include erythema, easy bruising, acne, hypertrichosis, hot flashes and vertigo. Several investigators have reported symptoms not previously described as occurring with corticosteroid therapy, e.g., headaches, lightheadedness, tiredness, sleepiness and occasional weakness.

Moon facies and buffalo humping have been seen in some patients on ARISTOCORT. However, ARISTOCORT therapy, in many instances, resulted in diminution of "Cushingoid" signs induced by prior therapy. Where this occurs, it may be related to reduced dosage on which patients can be maintained.

Reduction of dosage by one-third to one-half

In a double-blind study of comparative dosage in patients with rheumatoid arthritis,[9] 70 per cent of the cases were as well controlled on a dose of ARISTOCORT one-half that of prednisone. A general recommendation can be made that ARISTOCORT be used in doses two-thirds that of prednisone or prednisolone in the treatment of rheumatoid arthritis. There are individual variations, however, and each patient should be carefully titrated to produce the desired amount of disease suppression.

Comparative studies, of patients changed from prednisone, indicate reduced dosage of ARISTOCORT in bronchial asthma and allergic rhinitis (33 per cent),[5] and in inflammatory and allergic skin diseases (33-50 per cent).[10,11]

General Precautions and Contraindications

Administration of ARISTOCORT has resulted in lower incidence of major serious side effects, and in fewer of the troublesome minor side effects known to occur with all previously available corticosteroids. However, since it is a highly potent glucocorticoid, with profound metabolic effects, all traditional contraindications to corticosteroid therapy should be observed.

No precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

Since ARISTOCORT has less of the traditional side effects, the appearance of sodium and water retention, potassium depletion, or steroid hypertension cannot be used as signs of overdosage. As a rule patients will lose some weight during the first few days of treatment as a result of urinary output, but then the weight levels off.

Patients do not develop the abnormally voracious appetite common to previous corticosteroid administration. In fact, some patients experienced anorexia, and it is advisable to inform patients of this and to recommend they maintain a normal intake of food, with emphasis on liberal protein intake.

While precipitation of diabetes, peptic ulcer, osteoporosis, and psychosis can be expected to appear rarely from ARISTOCORT, they must be searched for periodically in patients on long-term steroid therapy.

Traditional precautions should be observed in gradually discontinuing therapy, in meeting the increased stress of operation, injury and shock, and in the development of intercurrent infection.

There is one overriding principle to be observed in the treatment of any disease with ARISTOCORT. *The amount of the drug used should be carefully titrated to find the smallest possible dose which will suppress symptoms.*

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Bunim, J. J.: Bull. New York Acad. Med. 33:461, 1957. 3. Good, R. A., Vernier, R. L., and Smith, R. T.: Pediatrics *19*:95, 1957. 4. Goolker, P., and Schein, J.: Psychosom. Med. *15*:589, 1953. 5. Sherwood, H., and Cooke, R. A.: J. Allergy *28*:97, 1957. 6. Hartung, E. F.: Personal Communication. 7. Schroeder, H. A.: J.A.M.A. *162*:1362, 1956. 8. Thorn, G. W., Laidlaw, J. C., and Goldfein, A.: Ciba Found. Coll. on Endocrinology, J. & A. Churchill, Ltd., London, *8*:343, 1955. 9. Freeman, H., Bachrach, S., McGilpin, H. H., and Dorfman, R. I.: Personal Communication. 10. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A. *165*:1821, 1957. 11. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.

Lederle

The Promise of Aristocort in Rheumatoid Arthritis

ARISTOCORT *therapy has been intensely and extensively studied for periods up to one year on 292 patients with rheumatoid arthritis.*

Significant is the fact that most patients were *severe* arthritics, transferred to ARISTOCORT from other corticosteroids because satisfactory remission had not been attained, or because the seriousness of collateral hormonal effects had made discontinuance desirable.

Results of treatment

Freyberg and associates[1] treated 89 patients with rheumatoid arthritis (A. R. A. Class II or III and Stage II or III). Of these, 51 were on ARISTOCORT therapy from three to over 10 months. In all but a few patients, satisfactory suppression of rheumatoid activity was obtained with 10 mg. per day. Thirteen were controlled on 6 mg. or less a day, and for periods to 180 days. The investigators reported therapeutic effect in most cases to be A. R. A. Grade II (impressive) and that marked reduction in sedimentation rates occurred.

Another interesting observation in this study: Of the 89 patients treated, 12 had active ulcers, developed from prior steroid therapy. *In six patients, the ulcers healed while on doses of* ARISTOCORT *sufficient to control arthritic symptoms.*

Hartung[2] treated 67 cases of rheumatoid arthritis for up to 10 months. He found the optimum maintenance dose to be 11 mg. per day. Nineteen of these patients were treated for six to 10 months with an "excellent" therapeutic response.

Dosage and course of therapy

The initial dosage range recommended is 14 to 20 mg. per day—depending on the severity and acuteness of signs and symptoms. Dosage is divided into four parts and given with meals and at bedtime. Anti-rheumatic effect may be evident as early as eight hours, and full response often obtained within 24 hours. This dosage schedule should be continued for two or three days, or until all acute manifestations of the disease have subsided, whichever is later.

The maintenance level is arrived at by reduction of the total daily dosage in decrements of 2 mg. every three days. The range of maintenance therapy has been found to be from 2 mg. to 15 mg. per day—with only a very occasional patient requiring as much as 20 mg. per day. Patients requiring more than this should not be long continued on steroid therapy.

The aim of corticosteroid therapy in rheumatoid arthritis is to suppress the disease only to the stage which will enable the patient to carry out the required activities of normal living or to obtain reasonable comfort. The maintenance dose of ARISTOCORT to achieve this end is arrived at while making full use of all other established methods of controlling the disease.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957. 2. Hartung, E. F.: Paper presented at Florida Academy of General Practice, St. Petersburg, Florida, Nov. 2, 1957.

Lederle

The Promise of Aristocort in Respiratory Allergies

About 200 patients with respiratory allergies have been treated with ARISTOCORT *for continuous periods up to eight months.*

Results of treatment

Sherwood and Cooke[1,2] gave ARISTOCORT to 42 patients with bronchial asthma and allergic rhinitis. Average dose needed to control the asthmatic group was approximately 6 mg. per day (range, 2 to 14 mg.). Results, which were called "good to excellent" in all but four, were achieved on one-third less than similarly effective doses of prednisone or prednisolone.

The investigators noted other major improvements in ARISTOCORT therapy over the older steroids. There was no increase in blood pressure in any patient: *on the contrary, in 12 patients, there was reduction of pressure when they were transferred to* ARISTOCORT. One patient had required auxiliary antihypertensive drug therapy; over a nine-week period on ARISTOCORT, the pressure gradually fell from 206/100 to 136/79. In another case, the pressure slowly dropped from 205/105 to 154/86.

The number of cases in which these investigators tried ARISTOCORT in allergic rhinitis was not large enough to provide significant averages. However, the range of effective therapy was from 2 to 6 mg. per day. These strikingly low daily doses resulted in control of all signs and symptoms.

Schwartz[3] treated 30 patients with chronic, intractable bronchial asthma. At an average daily dose of 7 mg., he reported "good to excellent" results in all but one. Spies,[4] Barach[5] and Segal,[6] reported similar results at average daily maintenance doses of 4 to 10 mg. of ARISTOCORT.

Dosage and course of therapy

The initial dosage range recommended is 8 to 14 mg. of ARISTOCORT daily. Although a rare, very severe case may require more than this on the first day of therapy, these dosages will usually result in prompt alleviation of dyspnea, wheezing and cyanosis. Patients are soon able to carry out a normal span of daily activity.

The maintenance level is arrived at by reduction of the total daily dose every three days in decrements of 2 mg.; in the over-all series, the average daily dose for bronchial asthma is approximately 8 to 10 mg. and for allergic rhinitis, 2 to 6 mg. per day. All total daily doses should be divided into four parts and given with meals and at bedtime. As in every condition where corticosteroids are employed, each patient's treatment should be individualized and the maintenance arrived at by careful titration against signs and symptoms of disease.

Patients with chronic bronchial asthma may require steroid therapy for several months. And since asthma may be associated with cardiac disease, especially in the older age groups, ARISTOCORT is particularly useful because of its ability to cause excretion of sodium and water.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Sherwood, H., and Cooke, R. A.: J. Allergy 28:97, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Schwartz, E.: Personal Communication. 4. Spies, T. D.: Personal Communication. 5. Barach, A. L.: Personal Communication. 6. Segal, M. S.: Personal Communication.

Lederle

The Promise of Aristocort

in Nephrotic Syndrome

Fourteen patients with the nephrotic syndrome have been treated with ARISTOCORT *for continuous periods of up to six weeks.*

Results of treatment

Hellman and associates[1,2] noted that ARISTOCORT, because of its favorable electrolyte effects, may well be the most desirable steroid to date in treatment of the nephrotic syndrome. However, thus far its use has been reported in only 14 children, of whom 8 had a complete diuresis and disappearance of all abnormal chemical findings. Four of the patients had diuresis, but continued to show some abnormal chemical findings, while two patients with signs of chronic renal disease failed to respond.

Dosage and course of therapy

In order to produce maximal response, 20 mg. should be given daily until diuresis occurs. The dose should then be decreased gradually and maintained around 10 mg. a day. After the patient has been in remission for some time, it may be advisable to diminish the dose gradually and discontinue ARISTOCORT.

in Pulmonary Emphysema and Fibrosis

Eleven patients with pulmonary emphysema and/or fibrosis were treated with ARISTOCORT *for continuous periods of over two months.*

Results of treatment

Only small series of cases observed by Barach,[3] Segal,[4] and Cooke,[5] are available. Barach treated patients who were not adequately controlled by prednisone, with the same dose of ARISTOCORT with significant improvement.

Dosage and course of therapy

The initial suppressive dose range recommended is 10-14 mg. daily. Frequently, there is a prompt decrease in cyanosis and dyspnea, with increase in vital capacity.

The average maintenance dose level was 8 mg. a day. If it is desired to maintain a patient on continuous therapy for some months, dosages as low as 2 mg. a day have been successful. All decreases in dosage should be gradual and at a rate of 2 mg. decrements in total daily amount, every two to four days. The daily dosage is divided into four parts and given with meals and at bedtime.



in Neoplastic Diseases

◊ *Forty-four children and adults have been given* ARISTOCORT *for palliative treatment of acute leukemia, chronic lymphatic leukemia, lymphosarcoma, lympholeukosarcoma and Hodgkin's disease.*

Results of treatment

Farber[6] has treated 22 children with acute leukemia for an average of three weeks. Of the 17 observed long enough to judge the efficacy of the medication, he rated five as excellent, three as good, two as fair and seven as poor responses.

Hellman and associates[7] gave ARISTOCORT to a group of patients with the various lymphomas in doses of 40 to 50 mg. a day—occasionally up to 100 milligrams. Treatment was continued in some cases for 17 weeks. Response was classified as good for the palliative purposes for which the drug was given.

Dosage and course of therapy

Massive initial suppressive doses of 40 to 50 mg. per day in children (1 mg./kg./day) and up to 100 mg. a day in adults have been administered.

Responses to any specific dosage in these conditions vary so widely that only a general dosage range can be indicated. Treatment must be individualized; rate of reduction in dosage and determination of maintenance levels cannot be categorized.

Miscellaneous

Patients with various other diseases have been treated by several clinical investigators. These include patients with osteoarthritis, acute bursitis, rheumatic fever, spondylitis, other "collagen-vascular" diseases (dermatomyositis, etc.), thrombocytopenic purpura, chronic eosinophilia, hemolytic anemia, diuretic-resistant congestive heart failures, and adrenogenital syndrome.

There have not been sufficient patients in any of the above categories to permit definitive treatment schedules to be finally established for ARISTOCORT. Additional studies are now in progress and physicians desiring information on any of these diseases are requested to write to Lederle Laboratories, Pearl River, New York for available data.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Presented at Nephrosis Conf., Bethesda, Md., Oct. 26, 1957. 2. Ibid: Personal Communication. 3. Barach, A. L: Personal Communication. 4. Segal, M. S.: Personal Communication. 5. Cooke, R. A.: Personal Communication. 6. Farber, S.: Personal Communication. 7. Hellman, L., Diamond, H. D., Ellison, R., Jaslowitz, B., Murphy, M. L., Tan, C. and Zumoff, B.: Personal Communication.

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The Promise of Aristocort

in Inflammatory and Allergic Skin Diseases

◊ *Over 200 patients with allergic and inflammatory skin diseases (including psoriasis, atopic dermatitis, exfoliative dermatitis, pemphigus, dermatitis herpetiformis, eczematoid dermatitis, contact dermatitis and angioneurotic edema) have been treated continuously with* ARISTOCORT *for periods of up to eight months.*

Results of treatment

Rein and associates[1] treated 26 patients with severe dermatitis. Twenty-four had been on prednisone when changed to ARISTOCORT. While some had found satisfactory symptomatic relief, others had also developed side effects—moon face, buffalo hump, increased appetite with excessive weight increases and gastro-intestinal disturbances.

These investigators determined the equivalent dosage of ARISTOCORT to be approximately two-thirds that required to control symptoms on the previous corticosteroid. Thirteen of the 26, who had developed moon face, noted either an actual decrease or no further increase when transferred to ARISTOCORT. In addition: *Voracious appetites disappeared, with loss of weight in 11 patients; there was no elevation in blood pressure, and no necessity to restrict sodium or administer supplemental potassium.* Sherwood and Cooke,[2] and Shelley and Pillsbury[3] obtained similar results in allied disorders.

Hollander[4] first observed that ARISTOCORT appears to have striking affinity for the skin and great activity in controlling such diseases as psoriasis, for which other corticosteroids have been indifferently effective. Shelley and Pillsbury,[3] in 50 cases of acute extending psoriasis found that over 60 per cent were markedly improved.

Dosage and course of therapy

The recommended initial suppressive dose range is 14 to 20 mg. per day. In very severe cases, temporary dosages up to 32 mg. a day have been successfully employed. Once lesions are suppressed, gradually reduce dose to the maintenance level—which may be as low as 2 mg. per day.

Bibliography

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A.: J.A.M.A., *165*:1821, 1957. 2. Sherwood, H., and Cooke, R. A.: Personal Communication. 3. Shelley, W. B., and Pillsbury, D. M.: Personal Communication. 4. Hollander, J. L.: Discussion of Paper by Black, R. L., presented at International Congress on Rheumatic Diseases, Toronto, June 28, 1957.

in Disseminated Lupus Erythematosus

◊ *Forty patients with disseminated lupus erythematosus were treated with* ARISTOCORT *for continuous periods of up to nine months.*

Results of treatment

Patients have responded very promisingly to therapy. Dubois[1] has had the largest single experience (28 cases) with ARISTOCORT in the treatment of this disease. He reported 25 of the 28 responded favorably.

Freyberg,[2] Hartung,[3] Hollander,[4] Spies,[5] and Segal,[6] each in smaller series of cases, reported similarly good therapeutic responses.

Dosage and course of therapy

The initial suppressive dose recommended is 20-30 mg. daily. Once the desired effect is achieved, the dose should be reduced gradually to maintenance levels (3 to 18 mg. per day).

In severely ill patients large doses may be required for several days in order to preserve life. Even on these large doses, edema and sodium retention have not occurred.

ARISTOCORT is available in 2 mg. scored tablets (pink); 4 mg. scored tablets (white). Bottles of 30.

Bibliography

1. Dubois, E. L.: Personal Communication. 2. Freyberg, R. H.: Personal Communication. 3. Hartung, E. F.: Personal Communication. 4. Hollander, J. L.: Personal Communication. 5. Spies, T. D.: Personal Communication. 6. Segal, M. S.: Personal Communication.

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Dr. Chester I. Miller, director of the S.U.I. student health service, was chosen as its next president by the North Central College Health Association at its meeting in Des Moines early in April.

Dr. R. L. Wicks, of Boone, has been given a five-year service award by the Selective Service System for his work with the Boone County Draft Board.

Dr. F. H. Top, of Iowa City, was reelected president of the Iowa TB and Health Association at the organizations meeting in Des Moines on April 11. **Dr. W. M. Kirkendall,** head of internal medicine at the Iowa City VA Hospital, was named first vice-president.

At a public forum in Sumner on April 15, sponsored by the Bremer County Cancer Society, the panel consisted of **Drs. Cecil Seibert** and **Clark Cooper,** of Waterloo, **Dr. Vincent Carstensen,** of Waverly, and **Dr. William Perrin,** of Sumner. Dr. Seibert is president of the Iowa Division of the American Cancer Society.

Five Waterloo doctors entertained nearly 800 guests at a dancing party in honor of their three new associates on April 9. Woody Herman's orchestra provided the music. The honorees were **Drs. W. A. Leo, Richard Waldorf** and **W. K. Rock,** and the hosts were **Dr. E. L. Rohlf, W. C. Drier, J. R. Walker, R. A. Weyhrauch** and **J. R. Thompson.**

A demonstration of the Bendix ultrasonic system for cleaning surgical instruments was a feature of the meeting of the Iowa Clinical Surgery Society held at St. Luke's Hospital, Davenport, on April 12. The equipment is manufactured by the Pioneer Central Division of the Bendix Aviation Corporation, in Davenport. **Drs. J. W. Agnew, Merle J. Brown, M. M. Benfer** and **Walter Balzer,** all of Davenport, were in charge of arrangements.

Dr. William C. Keettel, professor of obstetrics and gynecology at the S.U.I. College of Medicine, delivered two lectures at the Annual Meeting of the Nebraska State Medical Association, in Lincoln on May 1.

Dr. Leo H. Kuker has let contracts totaling $100,000 for the construction of a new medical clinic building in Carroll. It is to be ready for occupancy on October 1.

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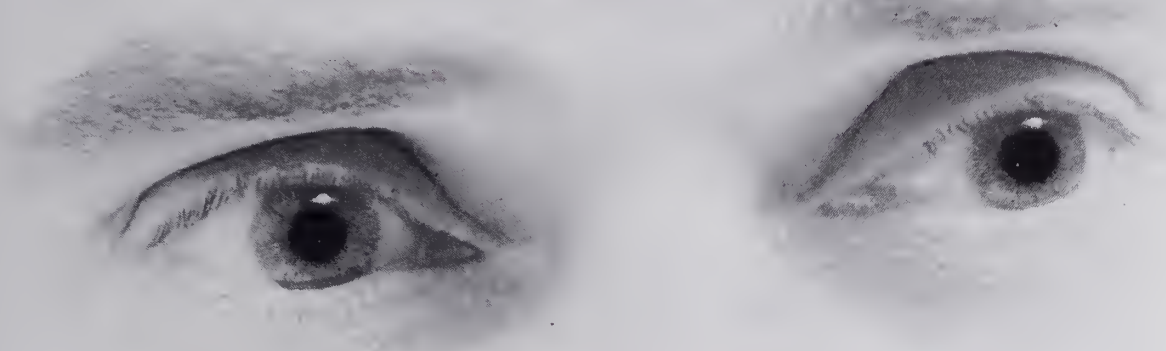
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*Howell, C. M., Jr.: Am. Pract. & Digest Treat. 8:1928, 1957.

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back to work – eyes worse
take afternoon off – see doctor
pick up VISINE – home again
let's try the drops
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eyes comfortable – good TV play
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turned out well **see the difference**



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*Trademark

1. Grossmann, E. E., and Lehman, R. H.: Am. J. Ophth. 42:121, 1956.

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Drs. James F. Bishop and **Gordon W. Gray,** of Davenport, have joined their practices of proctology and surgery.

Dr. E. B. Floersch, of Council Bluffs, is chairman, and **Dr. E. M. Juel,** of Atlantic, is vice-chairman of the newly-organized Southwest Iowa Heart Council.

In May, the state organization of Beta Sigma Phi, a social and business sorority, presented $3,000 to the Raymond Blank Hospital Heart Station, in Des Moines. That sum constituted the proceeds of a variety of fund-raising activities including dances, style shows and bake sales. The gift was accepted by **Dr. John E. Gustafson,** a Des Moines pediatrician, as the project's representative. A year ago, the Des Moines chapter raised $600 for the same cause.

During April, the State Board of Control authorized raises in salary for five of the superintendents of state hospitals. The increases were as follows: **Dr. W. C. Brinegar,** Cherokee Mental Health Institute, from $15,600 to $18,300; **Dr. W. B. Brown,** Mt. Pleasant Mental Health Institute, and **Dr. Karl Catlin,** Clarinda Mental Health Institute, from $13,800 to $14,700; **Dr. Grace Sawyer,** Woodward State Hospital and School, from $9,900 to $14,700; and **Mr. Alfred Sasser, Jr.,** Glenwood State School, from $9,300 to $10,800.

Dr. E. R. Duffie, a resident at the Raymond Blank Memorial Hospital for Children, in Des Moines, received first prize, $500, for his exhibit on endocardial fibroelastosis at the recent meeting of the Student American Medical Association, in Chicago. He had previously shown it at the ISMS Annual Meeting, and he will display it again at the June meeting of the AMA in San Francisco. His prize at the JAMA meeting and the expense money for his trip to San Francisco are donations by Lakeside Laboratories, a Milwaukee pharmaceutical manufacturer.

Dr. A. W. Horst, the city public health officer, confirmed the finding that a patient had died of diphtheria in Sioux City on April 28. Subsequently, three people were isolated in their homes as possible diphtheria cases, and nine others were subjected to diagnostic testing.

Dr. Lewis J. Dimsdale, of Sioux City, was made a fellow of the American College of Physicians at the group's meeting in Atlantic City early in May.

Dr. and **Mrs. Julius S. Weingart,** of Des Moines, spent three weeks in California during April.

The medical staff of Mercy Hospital, Iowa City, have established a $500 memorial to the late **Dr. Paul A. Reed.** The Iowa City newspaper's report of the project was not altogether clear, but it seemed to indicate that a room in the Hospital's newly completed geriatrics section is to be equipped in Dr. Reed's memory. Dr. Reed died on April 28.

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COMPETENT STAFF

Dr. William Malamud, who left S.U.I. three or four years ago after serving on its faculty for about ten years, has been made director of research by the National Association for Mental Health. Since leaving Iowa City, he has been chairman of the Department of Psychiatry at Boston University.

Dr. Tom D. Throckmorton, of Des Moines, was elected recently to replace **Dr. Martin I. Olsen,** also of Des Moines, on the board of directors of Iowa Blue Cross. Dr. Olsen is retiring after 19 years of service on the board. Both men have also been prominent in the management of Iowa Medical Service (Blue Shield).

Dr. Eugene Smith, of Waterloo, a lieutenant colonel in the U. S. Air Force Reserve, was elected Iowa Department surgeon at the annual convention of the Iowa Department of the Reserve Officers Association of the United States, in Cedar Rapids on April 26.

Dr. Lawrence Smith, of Iowa Falls, is the author of an article on the surgical treatment of tumors of the esophagus which appeared in the April issue of the JOURNAL OF THORACIC SURGERY. It is based on work that he did while in residency at the Mayo Clinic.

First prize in the ISMS Golf Tournament, held on April 20 at the Wakonda Club in Des Moines, was a cup donated by the Whylie-Farrell Optical Company, Inc., of Des Moines. It was won by **Dr. Mark D. Ravreby,** of Des Moines, a dark horse, with a score of 77.

For second place, there was a tie between **Dr. R. B. Allender,** of Des Moines, and **Dr. Wilson C. Wolfe,** of Ottumwa. Their scores were 82's.

There were several other contests. On Number 9, **Dr. E. A. Cobb,** of Cedar Rapids, was closest to the pin in one (four feet), and **Dr. Harold J. McCoy** was next closest (seven feet). The longest drive on Number 18 was made by **Dr. William E. Catalona,** of Muscatine, and **Dr. Robert R. Updegraff,** of Des Moines, was second. **Dr. C. H. Fee,** of Dennison, made fewest putts (29). **Dr. E. A. Cobb** had most birdies (3). Forty-seven doctors participated in the golf matches, and each of the 31 who stayed for the dinner received a gift of considerable value.

The donors of prizes and gifts were The Walgreen Drug Company; Eaton Laboratories; Hopkins Sporting Goods Company; Ford-Hopkins Drug Store; Katz Drug Co.; Pfizer Laboratories; Eli Lilly & Co.; E. R. Squibb & Sons, Div. of the Olin Mathieson Chemical Co.; Frankel Clothing Co.; Geigy Pharmaceuticals; Schering Corporation; Newburn Clothing Company; Mead Johnson



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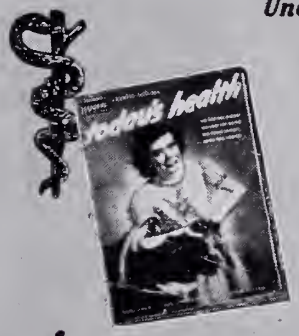
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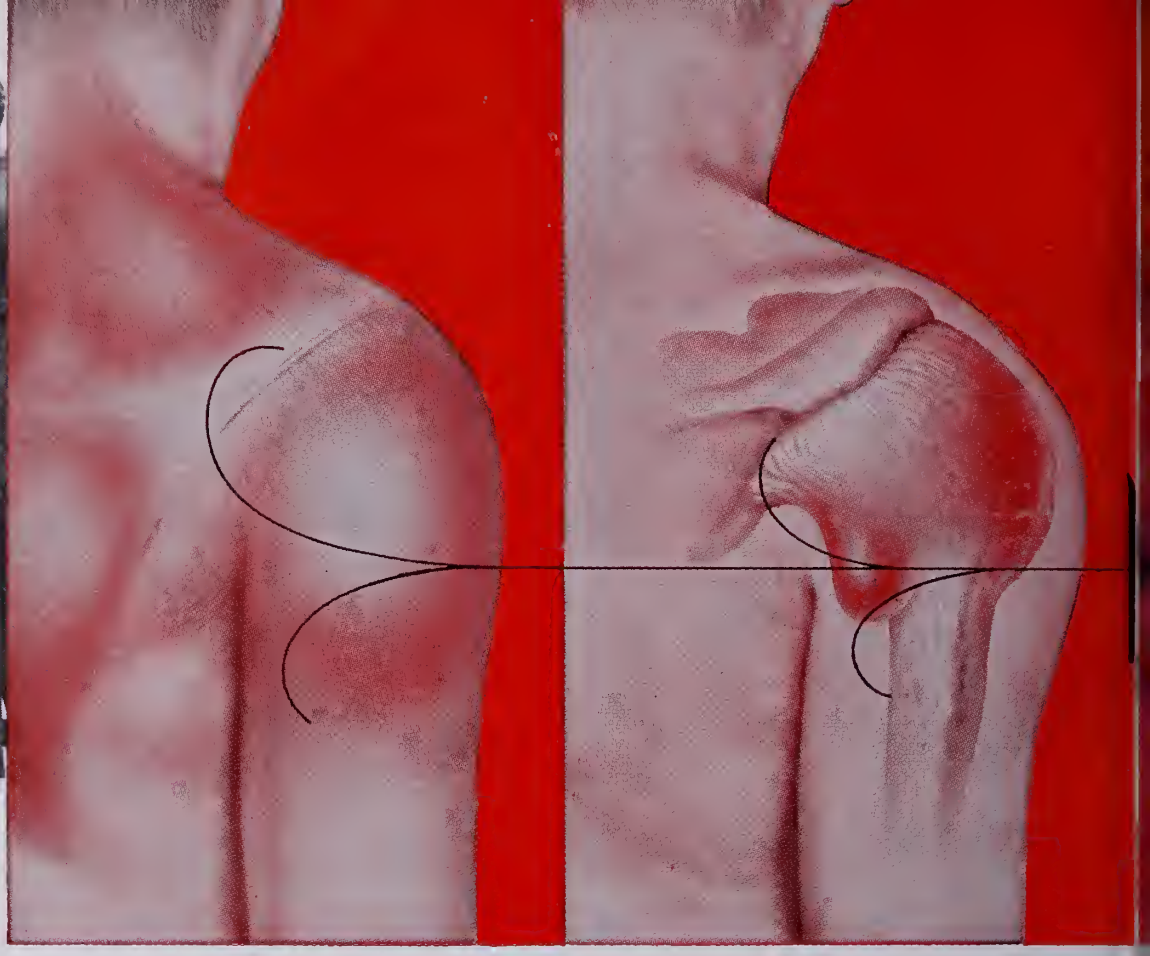
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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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Many doctors won prizes in drawings conducted by technical exhibitors at the ISMS Annual Meeting. At the Robinson Wholesale Company's booth, **Dr. C. E. Gilfillan**, of Bloomfield, won a movie camera; **Dr. T. L. Trunnell**, of Waterloo, won a hand vacuum cleaner; **Dr. D. G. Sattler**, of Kalona, won a South Bend casting rod; **Dr. Richard Lawton**, of Iowa City, won a dozen golf balls; and **Dr. M. T. Bates**, of Des Moines, won a spinning reel.

In addition to its sample room and warehouse in Des Moines, the Robinson Wholesale Company has recently opened similar facilities at 2020 Sixteenth Avenue, S. W., Cedar Rapids.

At the Sealy Mattress Company's exhibit, **Dr. Kenneth M. Keane**, of Sioux City, won a Sealy Posturepedic mattress and box springs.

Dr. Eugene E. Lister, of Dallas Center, won the portable television set for which the Holmes, Prouty, Murphy & May insurance agency held a drawing.

The program of the May 13 meeting of the Des Moines County Medical Society, at the Burlington Golf Club, was a clinical pathologic conference.

When it has been completed, on or about June 15, the new two-story office buildings on Woodland Avenue, Des Moines, to be called Doctors' Park, will be occupied by **Dr. Paul Cash**, a psychiatrist; **Dr. Tom Summers**, a neurologist; **Dr. T. B. Throckmorton**, a neurologist; **Dr. Robert Hayne**, a neurosurgeon; **Drs. Jack Spevak** and **John Gustafson**, pediatricians; **Drs. Douglas Gibson** and **John Kelley**, orthopedic surgeons; and two general surgery groups, **Drs. Robert Stickler** and **Charles Edwards**, and **Drs. Tom D. Throckmorton, William Myerly, Alfred Smith, Rutledge Schropp** and **Homer Wichern.**

Because the buildings are on a slope, each doctor or partnership will have an outside ground-level entrance. There will be no stairways or elevators inside the building, and no connecting doors between suites.

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At the May 7 meeting of the Johnson County Medical Society, held at the Hotel Mayflower, in Iowa City, **Dr. Harold E. Campbell,** of Denver, a member of the AMA Council on Automobile Crash Death and Injury, presented a paper entitled "You Can Crash Without Injury."

At the Annual Banquet of the ISMS on April 22, **Miss Fran Allison** autographed a picture of herself for a little girl named Julie, the daughter of one of the physicians present. The doctor can get the picture at the ISMS headquarters office.

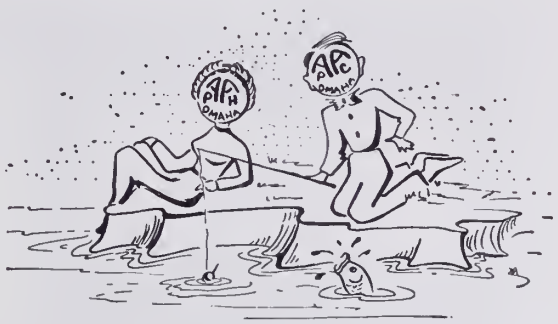
At the meeting of the Iowa Orthopedic Society in Des Moines, during the Annual Meeting of the Iowa State Medical Society, **Dr. F. E. Thornton,** of Des Moines, assumed the presidency, and **Dr. Elliott Cobb,** of Cedar Rapids, was chosen as president-elect. **Dr. William A. Baird,** of Ames, was named secretary-treasurer.

On April 16 and 17, **Dr. J. H. Randall,** head of the Department of Obstetrics and Gynecology at the S.U.I. College of Medicine, addressed the Alabama Association of Obstetricians and Gynecologists and the Alabama State Medical Association, in Montgomery.

At the 24th Annual Meeting of the American College of Chest Physicians, to be held in the Fairmont Hotel, San Francisco, June 18-22, **Dr. Johann L. Ehrenhaft,** professor of surgery and chairman of the Division of Thoracic Surgery at the S.U.I. College of Medicine, is to make two appearances. He will be one of three leaders of a discussion on medical and surgical therapy of coronary disease, and he will show a motion picture on "Closure of Interventricular Septal Defect Using the Pump Oxygenator."

Dr. Vincent Vaughn, an Ottumwa anesthesiologist, addressed the Wisconsin State Medical Society, on May 8, about "Hypnosis in Medicine," and on May 9 addressed the Wisconsin Society of Anesthesiologists on a similar topic. Both meetings took place in Milwaukee.

Dr. Keith Woodhouse has succeeded **Dr. Phillip Crew** as president of the Linn County Medical Society, at a meeting held in Cedar Rapids on May 8. The officers elected at the meeting include **Dr. E. B. McConkie,** president-elect; **Dr. R. A. Sautter,** of Mt. Vernon, vice-president; **Dr. Campbell F. Watts,** secretary; and **Dr. J. R. Huey,** treasurer. Except as otherwise noted, all these men practice in Cedar Rapids.



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(Additional Want Ads on page lxviii)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

LOCUM TENENS. Man needed to take over general practice during the month of August. Good salary or percentage. Living quarters can be arranged. Address No. 1,087, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

FOR SALE: Office equipment and practice in a growing county-seat town of 7,000 people in northeast Iowa. The present physician is definitely retiring after practicing in the town since 1915. Address No. 1,093, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

General practitioner with special interest in obstetrics and pediatrics desires association with indivdual or small group in Iowa community of 5,000 or over. Address No. 1082, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Microscope, sterilizer, examining table and other office instruments. Give age and price. Address No. 1,091, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER wishes to sell combination home and office in central Iowa town. Practice is to be included in the sale. Community is predominantly Lutheran, but the town has Catholic, Methodist and Presbyterian churches as well. Collections are excellent. Address No. 1,086, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

INTERNIST wanted by a clinic group which owns and operates a 150-bed hospital in a Texas town of 12,000 people. This is an opportunity for a doctor to join the clinic as a partner and also to become a part of a growing community. Address No. 1,085, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: General practitioner to take over active practice in fast-growing community. Great deal of obstetrics and pediatrics. Five minutes from excellent hospital. New ground-floor office has 1,000 ft. of floor space, air-conditioning, ample parking space. All types of recreational and social activities available. Leaving for personal reasons. Address No. 1,089, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

EXCELLENT OPPORTUNITY in group practice for a young general practitioner to replace a retiring partner in a growing Nebraska town of 15,000. Good salary to start; partnership as quickly as desired. Address No. 1,084, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED LOCUM TENENS: Board-certified surgeon, lifelong Iowa resident now in military service, desires one-month locum tenens in either general surgery or general practice. Address No. 1,090, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

PEDIATRICS resident would like to acquire old copies of PEDIATRIC CLINICS OF NORTH AMERICA. Write or call R. K. Lechelt, M.D., Raymond Blank Memorial Hospital for Children, Des Moines 14.

FOR SALE: House, office and equipment in small north-central Iowa town with large tributary area. The office is fully equipped for a general practice; the house is ranch style and has two bedrooms. Address No. 2,001, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: Portable G-E x-ray. Perfect condition. Brand new tube. Small down payments and monthly installments. Address No. 2,000. Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER can find splendid opportunity in northwest Iowa town of 10,000, where there are now only three GP's in active practice. Three manufacturing plants, a wholesale grocery and railroad shops insure economic stability of the community. Fine hospital, recreational facilities of all sorts. Office and equipment of recently deceased physician for sale or lease, and four-room furnished apartment for rent while the doctor finds preferable housing. Address No. 2,002, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER will be needed soon in northwest Iowa town in large and rich farming territory. Only physician leaving to take things easier after 26 years of successful practice. Ideal set up for two young doctors. Office available on edge of business district, if desired. Will introduce and help get started this summer. Address: H. Wolfson, M.D., Kingsley, Iowa.

GP LOCUM TENENS wanted for six weeks heginning July 1. Physician will have finished internship at that time. Address No. 1,098, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER needed by a town of 1,500 people close to Des Moines. Doctor with long-established practice died recently. Office for rent, and medical records and experienced nurse available. Hospital 10 miles away. The town now has no doctor of medicine. Address No. 1,096, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER, 30 years of age, desires location with small group, or a solo practice. Iowa graduate. family, veteran. One year of GP residency plus one year of general practice. Available in fall of 1958. Address No. 1,094, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

LOCUM TENENS: Will do locum tenens in Waterloo-Cedar Falls by the week or month. Local references. Address: No. 1,095, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

DOCTOR OF MEDICINE wanted by Eldon, Iowa, a railroad terminal town of 1,600. The man who locates there can arrange to serve the C&RI Railway and be county health director as well as carry on a private general practice. Excellent territory; 5-room office available. Address: Robert Weidenbach, Eldon Community Club, Eldon, Iowa.

LOCUM TENENS for first two or three weeks in August desired by SUI graduate who is now in residency training at the University of Michigan. Address: No. 1,099, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: Physician for Admitting Office in 386-bed general medical and surgical hospital. Forty-hour week; 30 days' annual vacation; sick leave; excellent retirement program with life insurance. Good school system. Salary dependent upon experience—minimum $9,000. Apply to Manager, Veterans Administration Hospital, Des Moines 9, Iowa.

FOR SALE: General practice and all office equipment and furniture. County seat town; good schools and churches; one other M.D. Leaving July 1 for residency. Address No. 2003, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

LIST YOUR WANTS

(Additional Want Ads on page lxvii)

WANTED: Physician for treatment and examination in the Outpatient Service in 386-bed general medical and surgical hospital. Forty-hour week; 30 days' annual vacation; sick leave; excellent retirement program with life insurance. Good school system. Salary dependent upon experience—minimum $9,000. Apply to Manager, Veterans Administration Hospital, Des Moines 9, Iowa.

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YOUNG PHYSICIAN wanted to do general practice in predominantly Catholic town of 1,500. Fully-equipped, air-conditioned office. Present doctor is disabled and will return to limited practice within a few months. Good opportunity for ambitious young doctor. Address: Dr. M. I. Nederhiser, Cascade, Iowa.

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GENERAL PRACTITIONER needed in northwest Iowa town of 4,000, in center of prosperous farming area. Community hospital. Territory is expanding because small nearby towns lack doctors. Combination office and home available on edge of business district. Address No. 1,083, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Young physician to do mostly pediatrics and obstetrics in busy two-man group. Air-conditioned office. First-year salary $12,000; partnership thereafter. Practice is in one of Iowa's largest cities and now nets $114,000 per year. Address: No. 1,081, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Young physician to do general practice and internal medicine in three-man group. New clinic building open in June; $12,000 first year, partnership later; county seat town in northwest Iowa. Address No. 1,092, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: General practice, new 3-bedroom home, and office (equipped or not) in northeast Iowa town of 2,500. Practice established for 13 years grosses between $40,000 and $45,000; good collections. Town has 25-bed hospital, and parochial as well as public schools; it really needs two new doctors. Address: No. 1,079, Journal of the Iowa State Medical Society, 529 36th Street, Des Moines 12, Iowa.

LOCUM TENENS or assistant's position preferably in the Des Moines area, sought by unmarried S.U.I. graduate with Iowa license. Completed rotating internship and one year of internal medicine prior to entry into Air Force. To be discharged August 1, 1958; available until October 1, 1958. Address: No. 1,078, Journal of the Iowa State Medical Society, 529 36th Street, Des Moines 12, Iowa.

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*Ford, R.V., and Moyer, J.H.: Rauwolfia Toxicity in the Treatment of Hypertension, Postgrad. Med. 23:41 (Jan.) 1958.

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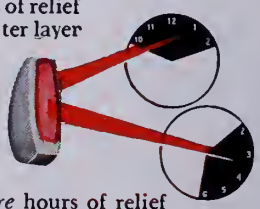
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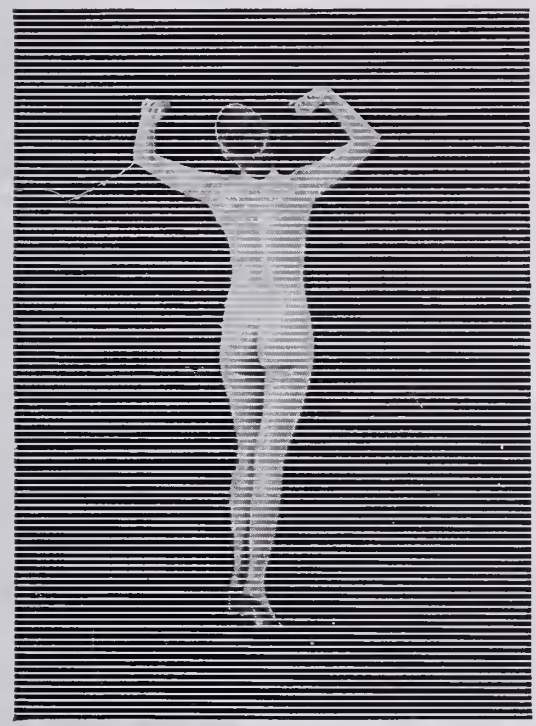
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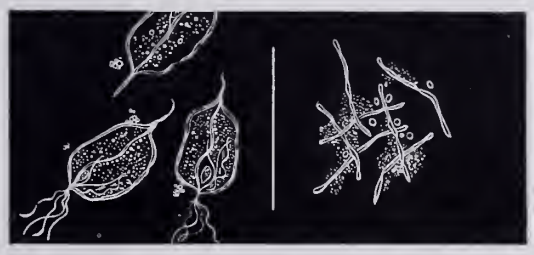
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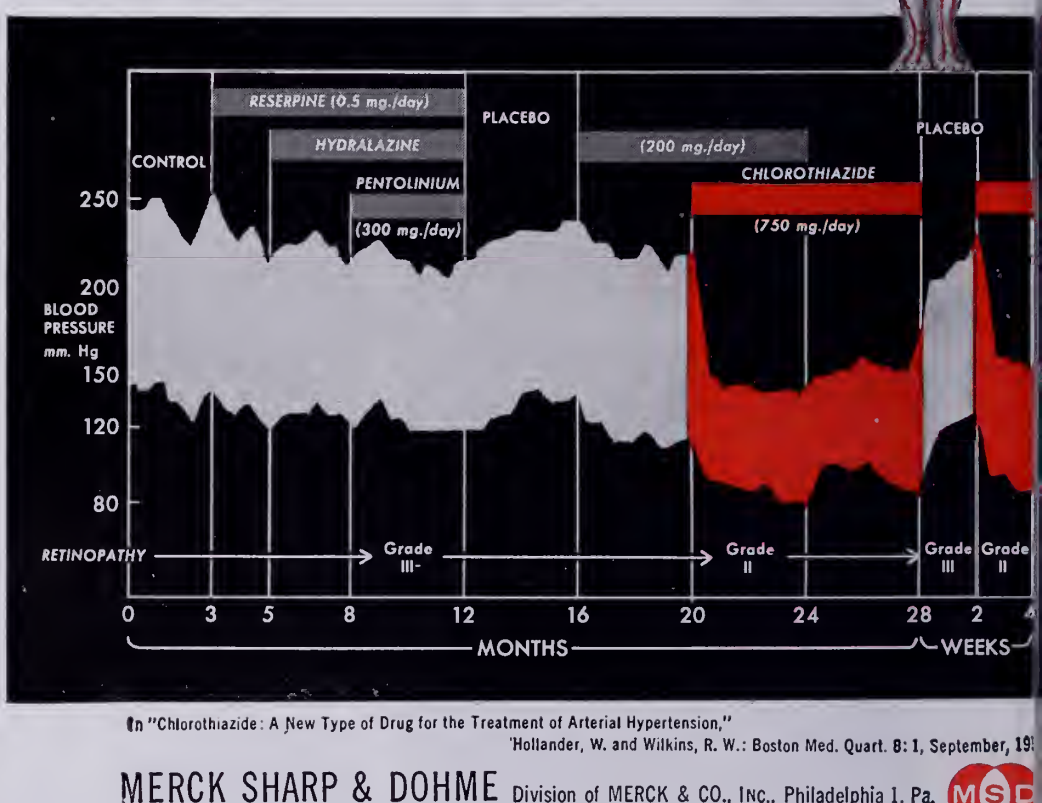
Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

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Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

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'Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 19

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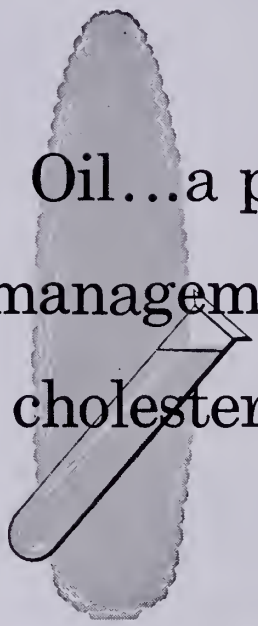
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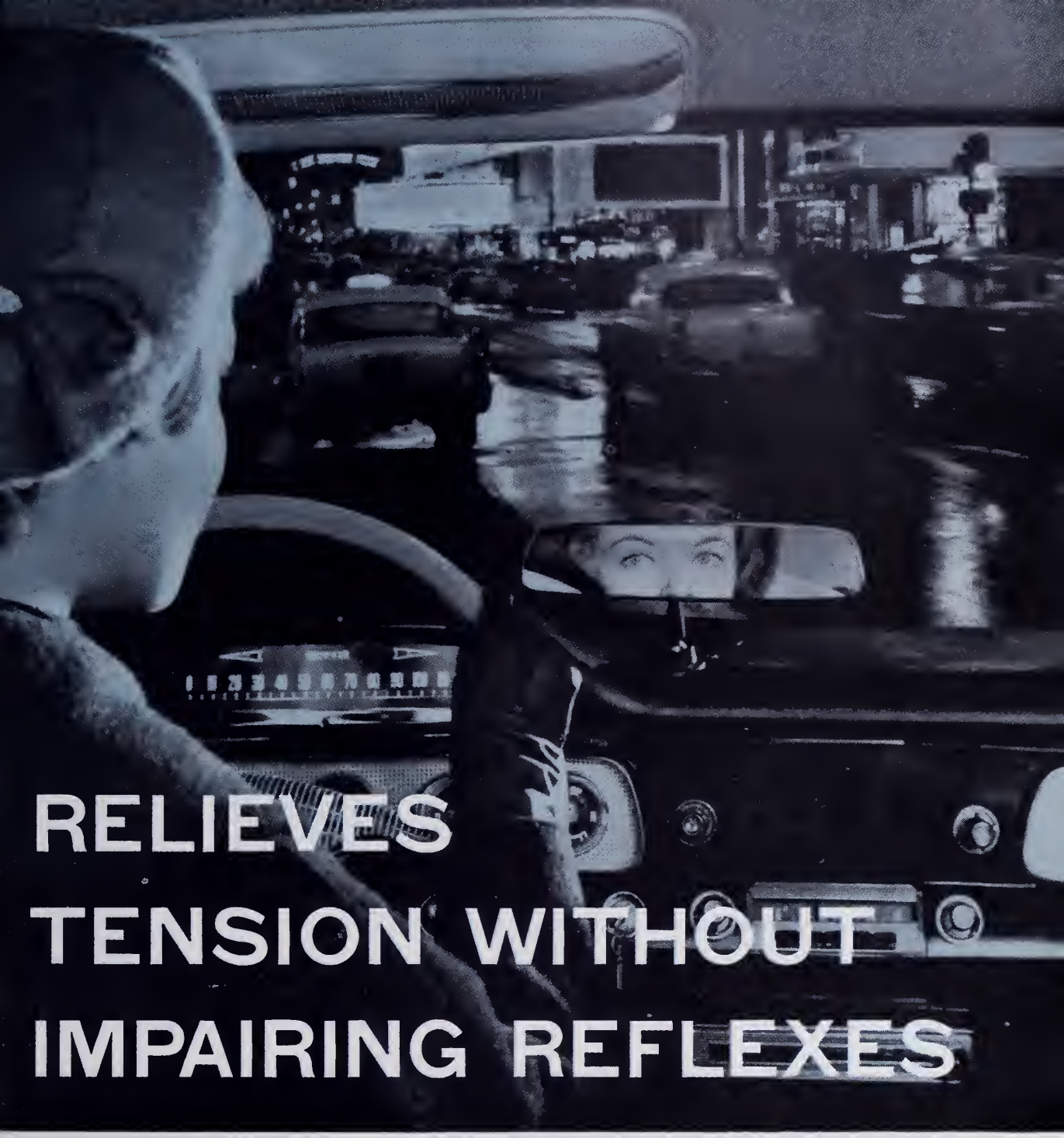
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RELIEVES TENSION WITHOUT IMPAIRING REFLEXES

"Even in double the usual dosage, [Miltown] produces no behavioral toxicity in our subjects as measured by our tests of driving, steadiness, and vision."*

Relieves anxiety, tension and muscle spasm in everyday practice

- with unexcelled safety
- without impairing autonomic function

Miltown®
meprobamate (Wallace)

Usual Dosage:
One or two 400 mg. tablets t.i.d.

Supplied:
400 mg. scored tablets, 200 mg. sugar-coated tablets, bottles of 50.

*Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

WALLACE LABORATORIES, *New Brunswick, N. J.*

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WHY SENSITIZE

in topical and ophthalmic infections

USE 'POLYSPORIN'®

brand

POLYMYXIN B—BACITRACIN OINTMENT

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For topical use: in ½ oz. and 1 oz. tubes.
For ophthalmic use: in ⅛ oz. tubes.

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If
Monilial overgrowth
is a factor

Achrostatin* V

TETRACYCLINE (PHOSPHATE-BUFFERED) AND NYSTATIN

Combines ACHROMYCIN V with NYSTATIN

SUPPLIED:

CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin. ORAL SUSPENSION (cherry-mint flavored) Each 5 cc. teaspoonful contains 125 mg. tetracycline HCl equivalent (phosphate-buffered) and 125,000 units Nystatin.

DOSAGE:

Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules or 8 tsp. of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

ACHROSTATIN V combines ACHROMYCIN† V ... the new rapid-acting oral form of ACHROMYCIN† Tetracycline ... noted for its outstanding effectiveness against more than 50 different infections ... and NYSTATIN ... the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients prone to monilial overgrowth during a protracted course of antibiotic treatment.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, N. Y. Lederle

*Trademark †Reg. U. S. Pat. Off.

in each of these indications for a tranquilizer...



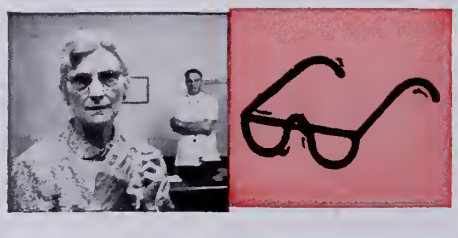
SR is a cardiac patient. His doctor put him on ATARAX because (+) it is an anti-arrhythmic and non-hypotensive tranquilizer.



Other tranquilizers added to PN's g. i. discomfort (he has ulcers). But now his doctor has him on ATARAX because (+) it lowers gastric secretion while it tranquilizes.



Asthmatic JL used to have frequent tantrums followed by acute bronchospasm. Her family doctor tranquilized her with ATARAX because (+) it is safe, even for children.



Senile anxiety and persecution complex dogged Mrs. K. until her doctor prescribed ATARAX Syrup. (+) It tastes good, and it's a perfect vehicle for Mrs. K's tonic.

Dosage: Children, 1-2 *10 mg.* tablets or 1-2 tsp. Syrup t.i.d. Adults, one *25 mg.* tablet or 1 tbsp. Syrup q.i.d.

Supplied: 10, 25 and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

...ATARAX® (BRAND OF HYDROXYZINE) gives you an extra benefit

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HAY FEVER,

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Nasal Spray

CONVENIENT NONBREAKABLE SQUEEZE BOTTLE

A physiologically balanced formulation of three well known and widely used compounds:

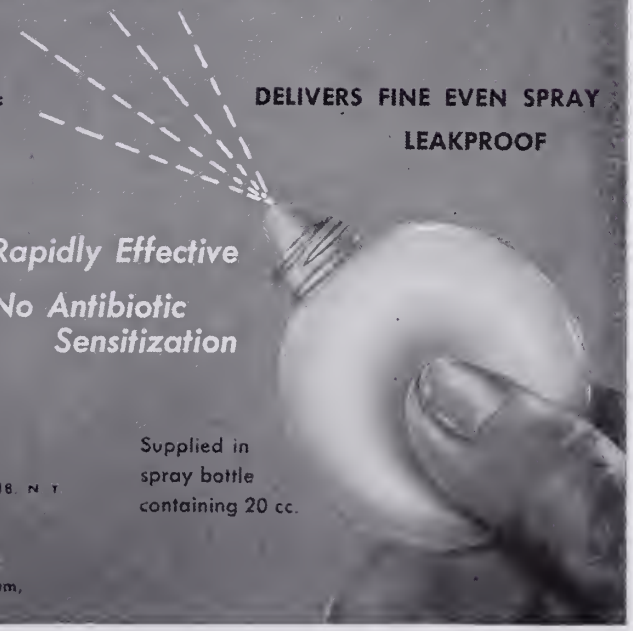
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Thenfadil® HCl, 0.1%
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DELIVERS FINE EVEN SPRAY
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Hospital practice of infant feeding

Standard formulas for FEEDING REGULATION

Underfeeding is a common cause when infants fail to gain and thrive. In the earliest stage, when caloric intake is inadequate, the infant cries after feeding, remains constipated, and the restlessness from hunger is mistaken for colic. A changed or weakened formula appears to be indicated.

But clinical studies show that a young infant requires a formula of 2 ounces of whole milk (40 calories), a teaspoon of Karo Syrup (15 calories), and a half-ounce of added water *per pound of body weight per day*. Of the total calories, a successful formula yields about 15-20% in protein, 50-60% in carbohydrate, and 25-35% in fat. Whole milk must be reinforced by adding 5% to 10% carbohydrate (1) to provide protein-sparing effect which permits protein anabolism instead of energy production; (2) sufficient calories for tissue formation; (3) proper utilization of fat; (4) suitable acid-base relationships in the intestinal tract and (5) adequate weight gains.

WHOLE MILK FORMULAS

Age Months	Whole Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760

EVAPORATED MILK FORMULAS

Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	5	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812

ADVANTAGES OF KARO® SYRUP IN INFANT FEEDING

Composition: Karo Syrup is a superior dextrin-maltose-dextrose mixture because the dextrins are non-fermentable and the maltose is rapidly transformed into dextrose which requires no digestion.



Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

Free to Physicians—Book of Infant Feeding Formulas with convenient schedule pads. Write: Karo Infant Feeding Guide, Box 280, New York 46, N. Y.

CORN PRODUCTS REFINING COMPANY



when eating moves outdoors . . .

CREMOSUXIDINE®

SULFASUXIDINE® SUSPENSION WITH KAOLIN AND PECTIN

CONTROLS "SUMMER COMPLAINT"

For people at work or on vacation, "summer complaint" is an annoying hazard of warm weather. Changes in routine or in eating or drinking habits can cause diarrhea and ruin summer days.

CREMOSUXIDINE gives prompt control of seasonal diarrhea by providing antibacterial and antidiarrheal benefit. It detoxifies intestinal irritants and soothes inflamed mucosa.

Chocolate-mint flavored CREMOSUXIDINE is so pleasant to take too!

CREMOSUXIDINE and SULFASUXIDINE are trade-marks of Merck & Co., Inc.

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65 plus

CONTINUITY OF COVERAGE . . . IN AN INSURANCE PLAN THAT PAYS HOSPITAL AND SURGICAL BILLS FOR PEOPLE **OVER 65**

The need for *continuity of coverage* for senior citizens cannot be overstated. This was a major feature of the new hospital-surgical plan for people over 65 introduced last fall in Iowa by Continental Casualty Company.

Now, thousands of Iowa residents 65 or over are protected by the unique 65-PLUS policy. A plan that states:

1. No policy can be individually terminated or modified; termination or modification must apply to *all* 65-PLUS policies (Form No. OA14) issued in Iowa.
2. Every Iowa resident 65 or over is eligible—no upper age limit.
3. Every applicant accepted regardless of present health or past medical history.
4. Pre-existing conditions, for which applicant has been medically treated or advised, covered after six months—all other conditions covered immediately.

This fall the 65-PLUS plan again will be offered throughout Iowa. Because of the interest that many physicians have expressed on behalf of their patients, Continental Casualty Company will mail complete details to every Iowa physician well in advance of the public announcement. The actual running dates of the program will be announced in this publication next month.

Continental Casualty Company

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Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

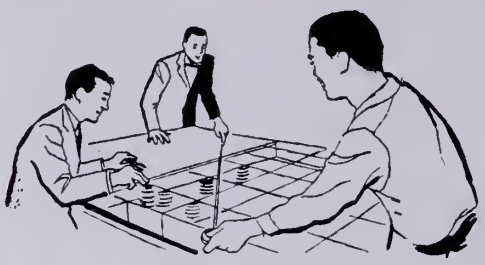
references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U.S. Pat. Off.



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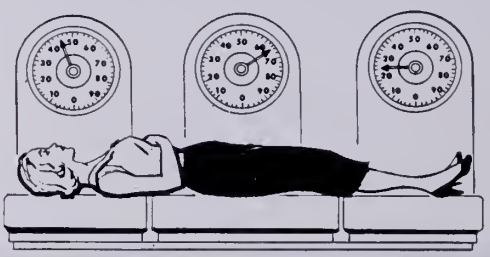
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Just for You!

. . . or your patients whose back complaints are caused by improper support. Our patented sectional scales scientifically measure body weight in three sections and these are interpreted into degree of firmness in the construction of custom made mattresses.

Sold in better stores everywhere!

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Your Back's Best Friend
For the Rest of Your Life

MY DAD— HE HURT HIS BACK REAL BAD



"It happened at work while he was putting oil in something"

"He told Mom his shoulder felt like it was on fire"

"He couldn't swing a bat without hurting"

"But Doctor gave him some nice pills--and the pain went away fast"

"Dad said we'd play ball again tomorrow when he comes home"

AND THE PAIN WENT AWAY FAST

FOR PAIN

Percodan®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC) **TABLETS**

ACTS FASTER...
usually within 5-15 minutes

LASTS LONGER...
usually for 6 hours or more

MORE THOROUGH RELIEF...
permits uninterrupted sleep through the night.

RARELY CONSTIPATES...
excellent for chronic or bedridden patients

and now... **NEW**

Percodan®-Demi

VERSATILE

New "demi" strength permits dosage flexibility to meet each patient's specific needs. PERCODAN-DEMI provides the PERCODAN formula with one-half the amount of salts of dihydrohydroxycodeinone and homatropine.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Available through all pharmacies.

Each PERCODAN* Tablet contains 4.50 mg. dihydrohydroxycodeinone hydrochloride, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. phenacetin, and 32 mg. caffeine.

Literature? Write

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NOW...A NEW TREATMENT

'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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BY ALL DERMATOLOGISTS

A TOPICAL "METI" STEROID PREPARATION FREE FROM UNWANTED SENSITIZATION POTENTIAL



NAME **METI-DERM® CREAM 0.5%**

DESCRIPTION 5 mg. prednisolone, free alcohol, in each gram—nonstaining, water-washable base—exerts a therapeutic effect in presence of an exudate without being occlusive.

supplied: 10 Gm. tube.

Meti—T.M.—brand of corticosteroids.

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. . . acts fast to provide unusually long-lasting relief

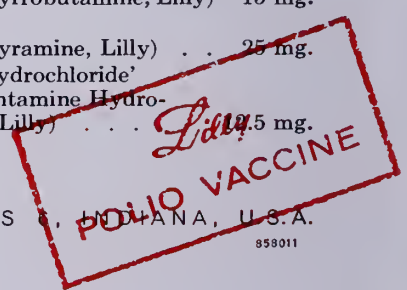
'Co-Pyronil' combines a long-acting and a short-acting antihistamine with a synergistic sympathomimetic. It usually begins to combat symptoms within fifteen to thirty minutes and eliminates them for as long as twelve hours. Thus you can give your hay-fever patients and other allergy victims remarkably complete relief on a dosage of only 2 or 3 pulvules daily.

*'Co-Pyronil' (Pyrrobutamine Compound, Lilly)

Prescribe 'Co-Pyronil' in attractive green-and-yellow pulvules for adults; in tiny red pediatric pulvules or tasty suspension for children.

Each Pulvule 'Co-Pyronil' provides:

'Pyronil' (Pyrrobutamine, Lilly)	15 mg.
'Histadyl' (Thenylpyramine, Lilly) . .	25 mg.
'Clopane Hydrochloride' (Cyclopentamine Hydrochloride, Lilly) . . .	12.5 mg.



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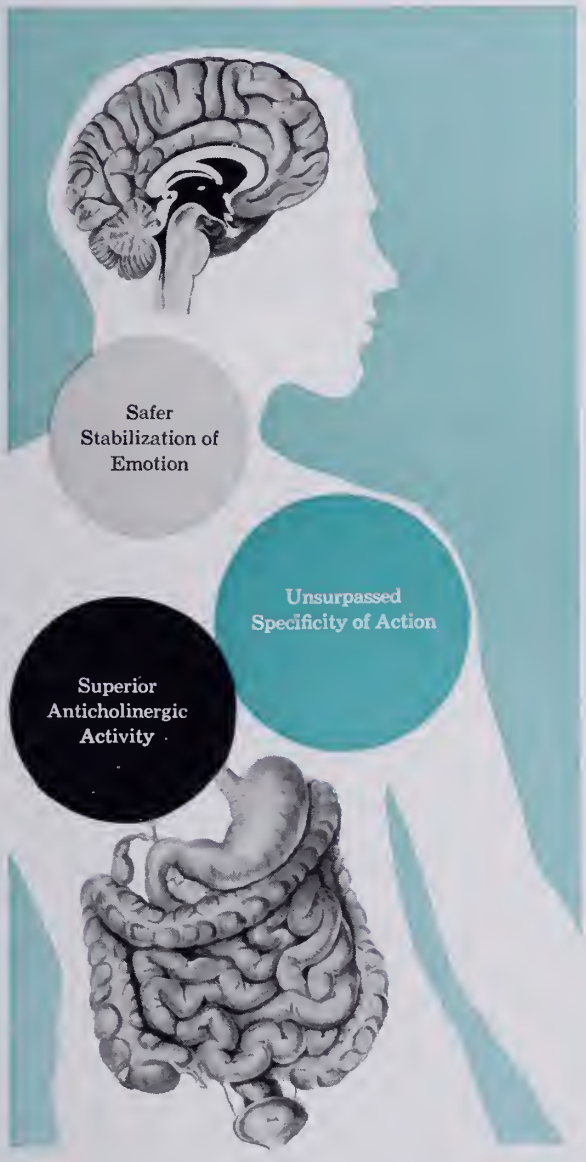
Controls Stress

Relieves Distress in smooth muscle spasm

new

Pro-Banthine® *with* Dartal®

– for positive relief of cholinergic spasm. – a new and safer agent for normalizing emotions.



PRO-BANTHINE WITH DARTAL offers you a new, specific and reliable control of visceral motor disorders, especially when these disorders are induced or aggravated by psychic tensions or anxiety.

Pro-Banthine has won wide clinical acceptance as the most effective drug for controlling gastrointestinal hypermotility and hypersecretion.

Dartal, a new phenothiazine congener, offers greater safety, flexibility and effectiveness in stabilizing emotional agitation.

The combination of each drug in fully effective doses in Pro-Banthine with Dartal gives a new means of approach to the medical management of functional gastrointestinal disorders mediated by the parasympathetic nervous system.

Specific Clinical Applications: Functional gastrointestinal disturbances, gastritis, pylorospasm, peptic ulcer, spastic colon (irritable bowel), biliary dyskinesia.

Dosage: One tablet three times a day.

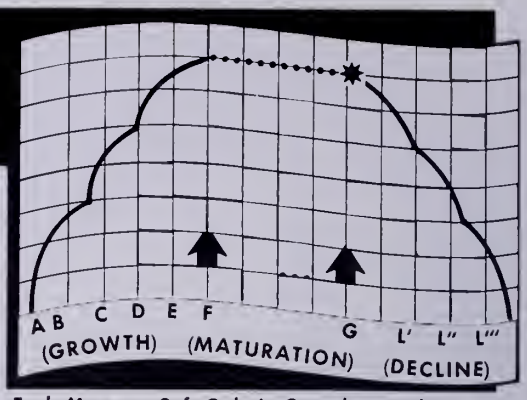
Availability: Aqua-colored tablets containing 15 mg. of Pro-Banthine (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride).

G. D. SEARLE & CO., Chicago 80, Illinois.
Research in the Service of Medicine.

SEARLE

...to postpone the "G" point*...

℞ ..... Geritag



For patients over 40, The G POINT (point of declination in life) can be postponed!

Properly balanced Androgen — Estrogen — nutritional therapy may prevent premature aging and damage of gonadal decline and nutritional inadequacy.

Complaints of symptoms such as muscular pain, fatigue, irritability, and poor appetite in the patient over 40 may be the first indications of three major stress factors in the aging process: (1) Gonadal Hormonal Imbalance, (2) Nutritional Inadequacy and (3) Emotional Instability. GERITAG is especially formulated to guard against premature damage and to delay the degenerative process.

Rx GERITAG in preventive geriatrics.

Each Magenta Soft Gelatin Capsule contains:

Methyltestosterone	2 mg.	Thiamine Hcl.	2 mg.
Ethinyl Estrodiol	0.01 mg.	Riboflovin	2 mg.
Ferrous Sulfate	50 mg.	Pyridoxine Hcl.	0.3 mg.
Rutin	10 mg.	Niacinamide	20 mg.
Ascorbic Acid	30 mg.	Monganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iodine	0.15 mg.
Cobolt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitomin A	5,000 I.U.	Choline Bitartrote	40 mg.
Vitomin D	400 I.U.	Methionine	20 mg.
Vitomin E	1 I.U.	Inositol	20 mg.
Cal. Pontothenote	3 mg.		

Also available as injectable.

*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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PMB-200

"Premarin" with Meprobamate new potency

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For undue emotional stress in the menopause

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Also available as PMB-400 (0.4 mg. "Premarin," 400 mg. meprobamate in each tablet).

Supply:
No. 880, PMB-200 bottles of 60 and 500.
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"Premarin®" conjugated estrogens (equine) Meprobamate licensed under U.S. Pat. No. 2,724,720 5830

THUMB-SUCKING

The dangers of children's thumb-sucking has been over-emphasized, and parents have been over-alarmed, according to a report by Drs. Alfred and Howard Traisman, Chicago pediatricians.*

"Parents should be informed and reassured about the relative harmlessness of this habit," they declare. "Occasionally, it may continue because it has been established as a habit even though most of the psychological implications have disappeared."

Their conclusions are based on a study of 2,650 infants and children, 1,208 (45.6 per cent) of whom sucked their thumbs. Their findings show that the majority of the thumb-sucking youngsters (80.8 per cent of 1,208) persisted in their habit at the age of two years, and that only 3.9 per cent abandoned it at the age of one year or earlier.

The average age at which the habit stopped spontaneously was 3.8 years. This finding varies from that of previous observers, who have maintained that two years of age is the limit. Nevertheless, the Drs. Traisman report, "Dentists say that cessation of the habit at this age [3.8 years or thereabouts] is compatible with normal tooth and dental arch formation."

Thus, they say that parents shouldn't be led to expect thumb-sucking to stop at two years of age, and they should be told that the habit will not harm their children even though it persists nearly to the age of four years.

* Traisman, A. S., and Traisman, H. S.: Thumb- and finger-sucking, a study of 2,650 infants and children. J. PEDIATRICS, 52:566-572, (May) 1958.

ICS SPONSORS TWO COURSES AT COOK COUNTY

The International College of Surgeons has arranged to sponsor two postgraduate courses this year at the Cook County Graduate School of Medicine, Chicago. The first will be given July 7-19, and the second October 13-25. They will include illustrated lectures, motion pictures, anatomy demonstrations, operative clinics and practice surgery by the participants on anesthetized dogs. In addition, there will be 20 hours of surgical anatomy on the cadaver, and lectures and demonstrations on the following topics: gastric, pediatric, large and small bowel, anorectal, pancreatic, splenic, gallbladder, gynecologic, hernia, esophageal and thyroid surgery; physiology; intestinal obstruction; thoracic emergencies; cardiac arrest; hand injuries and infections; and abdominal injuries.

Additional information can be secured either from the Cook County Graduate School of Medicine, 707 South Wood Street, Chicago 12, or from the International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.



release from pain and inflammation

with **BUFFERIN®**

IN ARTHRITIS

salicylate benefits with minimal salicylate drawbacks

Rapid and prolonged relief — with less intolerance. The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

ANOTHER FINE PRODUCT OF BRISTOL-MYERS

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Personals



In response to a request from **Dr. R. S. Gerard,** of Waterloo, representing the Black Hawk County Medical Society, for the establishment of a screening agency to help doctors, attorneys and other interested people secure advice and, if necessary, financial help for unwed mothers, United Services of Black Hawk County has arranged to inform each doctor there of two social agencies that will undertake to see each such girl promptly.

In Black Hawk County during 1956, a total of 55 adoptions were certified by the court. Of them, 37 were the results of independent placements, and 18 of agency placements. Those figures are to be taken neither as an index of the rate of illegitimacy there nor of the agencies' case-loads, for some girls decide to keep their babies or place them at least temporarily in other than adoptive situations, and many such girls get advice and/or other help from social workers. Other illegitimately-pregnant women go away to have their babies. The Medical Society has offered to cooperate in enabling social service agencies to take a hand in a larger share of the cases.

Doctors at the Park Clinic, in Mason City, were hosts on May 24 to a regional meeting of the American Association of Medical Clinics. The principal guest speaker was **Dr. George B. Plain,** of South Bend, Indiana, national president of the organization, and the attendance was approximately 50. **Drs. T. E. Davidson, A. E. McMahon** and **W. N. Hanson** were in charge of local arrangements.

Members of the Crawford County Medical Society were hosts to a meeting of doctors from throughout western Iowa at the Denison Country Club on May 21.

Dr. A. B. Hendricks, of Davenport, was elected secretary of the Iowa Heart Association at the organization's meeting in Des Moines on May 22. The new members of the Executive Committee are **Dr. John W. Eckstein,** of S.U.I., Dr. Hendricks and **Dr. Galen Boller,** of Waterloo.

Dr. G. J. Sartor, of Mason City, is the new president of the Iowa Pediatrics Society. **Dr. Ralph Dyson,** of Des Moines, was reelected secretary-treasurer at the spring meeting of the group.

Dr. W. M. Page, who has practiced at Monte-

Doctor . .

HERE IS WHAT YOU WANT

We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

- LIFETIME INCOME FOR SICKNESS
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- HOUSE CONFINEMENT NEVER REQUIRED
- DOUBLE BENEFITS FOR SPECIFIC AUTO ACCIDENTS
  *(Available up to $25,000 principal sum which doubles to $50,000.)
- LIBERAL RENEWAL PROVISIONS
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for adults and children



Prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis

POMALIN

TRADEMARK

Liquid

EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine	2 Gm.
Pectin	225 mg.
Kaolin	3 Gm.
Opium tincture	0.08 cc.
(equivalent to 2 cc. paregoric)	

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz.*
Exempt Narcotic. Available on Prescription Only.

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zuma since 1947, will shortly begin a residency in anesthesiology at S.U.I.

Dr. John E. Tyrrell, of Manchester, has received the highest award in the gift of the Boy Scouts of America. A part of his work for the organization has been the securing of an area near Colesburg for a Boy Scout camp.

Drs. Erling Larson, A. B. Hendricks and **Robert Towle,** and their wives, of Davenport, attended the meeting of the American College of Physicians at Atlantic City early in June.

A man arrested at Traer for forgery has confessed having stolen several types of drugs and some syringes from the office of **Dr. N. B. Williams,** in Belle Plaine on May 16. He said that after visiting Dr. Williams for treatment of a leg injury, he returned, entered the office by means of a skeleton key and climbed through a transom into the closet where the drugs were stored.

The Tama County Medical Society entertained members of the County Bar Association at the Tama-Toledo Golf Club on June 2. Following dinner, the AMA film "The Medical Witness" was shown.

The S.U.I. College of Medicine held its annual Alumni Reunion in Iowa City on June 13 and 14. At the opening scientific session on Friday, **Dr. Lee E. Rosebrook,** of Ames, read a paper entitled "Reflections of 25 Years"; **Dr. Geraldine A. Light,** of Chicago, spoke on "Influence of Airway Pressures on the Circulation"; **Dr. E. B. Getty,** of Primghar, delivered "A General Practitioner's Comments on Rural Obstetrics"; and **Dr. Carroll B. Larson,** head of the S.U.I. Department of Orthopedic Surgery, discussed "Changes That Have Been Wrought in Our Medical School."

At the Saturday meeting, **Dr. Theodore J. Bauer,** of the U.S.P.H.S., Washington, D.C., spoke on "The Relationship of the Private Practice of Medicine and Public Health in the Field of Chronic Disease and Aging"; **Dr. Craig D. Ellyson,** of Waterloo, read a paper entitled "Gripes About Some Problems in Medicine"; **Dr. Alto E. Feller,** of Charlottesville, Virginia, spoke on "Common Respiratory Diseases"; and **Dr. Lawrence J. Halpin,** of Cedar Rapids, discussed "Bronchial Asthma."

The guest speaker at the annual S.U.I. medical convocation, on Thursday evening, June 12, was **Dr. Gunnar Gundersen,** president-elect of the AMA.

At noon on June 10, while **Dr. Bernard C. Luehrsmann,** of Dyersville, was at lunch in his apartment upstairs, his office was burglarized and $1,500 in checks and cash was taken. About two-



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thirds of the amount was in unendorsed checks, but an endorsement stamp was on the desk near the cash drawer, and it is thought possible that the thieves may have used it to make the checks negotiable.

Dr. Arthur Steindler, professor emeritus of orthopedic surgery at the S.U.I. College of Medicine, was guest of honor at the meeting in Iowa City on May 30 and 31, of the Robert Jones Club, an organization composed of 30 leading orthopedic surgeons in the United States and Canada. Jones was the founder of the British Orthopaedic Society and is said to have been "the father of rehabilitation."

Dr. Steindler, who is now in private practice in Iowa City, read a scientific paper during the meeting. Other speakers included **Drs. C. B. Larson, Ignacio V. Ponseti, John R. Carter, Genevieve Stearns, Michael Bonfiglio, Adrian Flatt, Russell Meyers and W. D. Paul**, of S.U.I., **Drs. D. M. Paul and E. S. Brintnall**, of the Iowa City V-A Hospital, and **Dr. William Catalona**, of Muscatine.

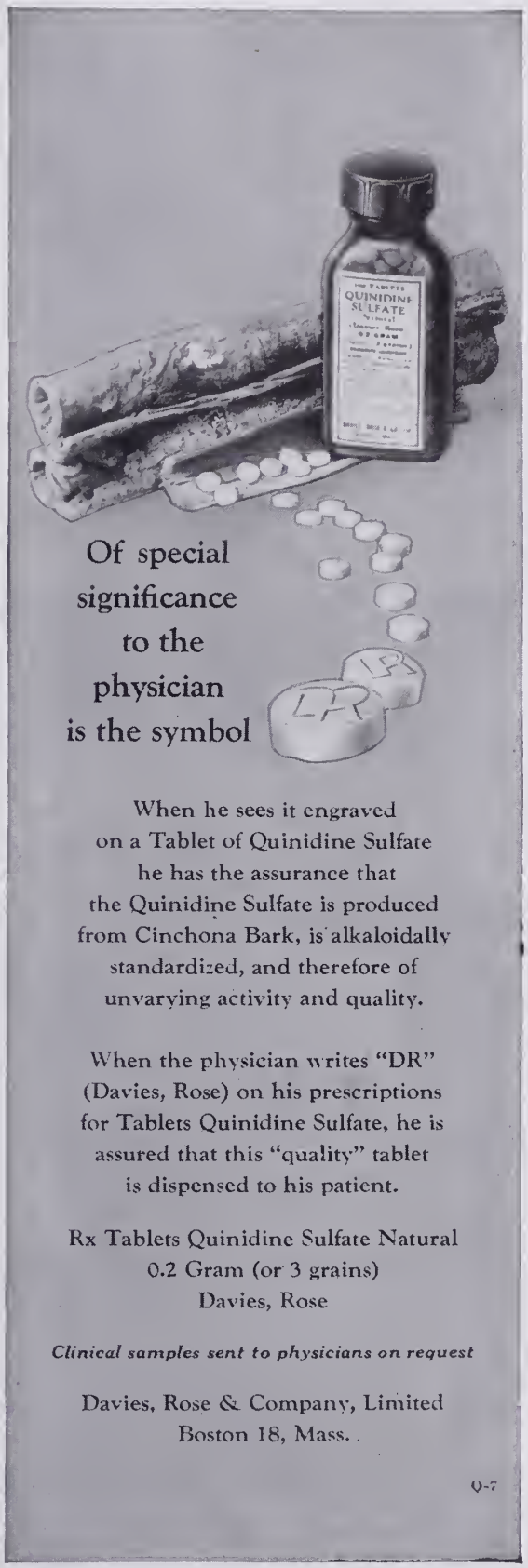
Dr. L. H. Prewitt, of Ottumwa, lectured on May 26-28, at the Hansel Foundation of Allergy, in St. Louis. He has been named president-elect of the EENT section of the American College of Allergy.

Dr. Ian Maclean Smith, an assistant professor of internal medicine at S.U.I., has been invited to present a report of his research on infectious diseases at the International Congress of Microbiology, in Stockholm, August 4-9. He will read a paper entitled "The Cause of Death from Staphylococcal Disease in Mice."

Dr. B. A. Isenberg, of Lohrville, an Associate Member of the Iowa State Medical Society, recently passed the fiftieth anniversary of his entry into medical practice.

When he discovered that fire, perhaps caused by a short circuit, had broken out in his car, a man stopped in front of **Dr. Sidney Brownstone**'s home in Mason City. He called the fire department, but Dr. Brownstone came out with a hand fire-extinguisher and had put out the blaze before the firemen arrived. The incident occurred in the early afternoon of May 28.

The State Board of Regents recently accepted $18,859.07 which had been willed to the S.U.I. College of Medicine by **Isabel P. Middleton** for the establishment of a medical-student loan fund in memory of the late **Dr. George M. Middleton**, of Davenport.



Dr. Adrian Flatt, an assistant professor of orthopedic surgery at S.U.I., will use a grant of $2,000 from the Iowa Chapter of the Arthritis & Rheumatism Foundation for research on metal replacements for joints crippled by arthritis.

Col. Sterling J. Ritchie, an orthopedic surgeon who practiced in Colfax and Newton prior to 1940, was official doctor for **Vice President Nixon** during his recent ill-fated good will tour of South America. During a brief visit to Newton last month, Col. Ritchie said he thinks the riots were even worse than the newspapers described them.

Dr. Knight Fee, of Toledo, was guest of honor at a dinner marking the opening of an x-ray department at the hospital of the State Juvenile Home there a few weeks ago. He had donated the essential equipment, and he has been a staff member there for the past nine years.

The other doctors in Indianola, their employees and some other people gave a surprise party for **Dr. L. E. Hooper** on May 26 to mark the fiftieth anniversary of his entry into medical practice. Dr. Hooper was made a Life Member of the Iowa State Medical Society in April of this year.

Dr. Gladys Cooper held open house for about 400 or her friends and former patients at Red Oak on May 18. She had spent a considerable period, part of it in Michigan and the rest in Florida, while she recuperated from an illness.

Dr. William B. Bean, head of internal medicine at S.U.I., spoke twice at the World Congress of Gastroenterology, at Washington, D. C. in May. He presented a banquet address, and spoke to a daytime session on "Gastrointestinal Bleeding in Some Rare Diseases With Pathognomonic Skin Lesions."

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Dr. Edward E. Schmiedel has joined **Dr. W. P. Pelz** in practice at Charles City. A 1955 graduate of the College of Medicine at S.U.I., he interned in Fresno, California, and since then has been in military service at the Army's Pueblo Ordnance Depot, with the rank of captain.

Construction of a clinic building for **Drs. C. J. Lohmann, Jesse L. Saar** and **Theodore T. Mazur,** in Burlington, will start shortly. The land on which it is to be erected is now occupied by the Waldin home, "the house on the bluff," and it must first be razed.

Dr. Walter J. Balzer, of Davenport, was elected president of the Iowa-Illinois Central District Medical Association on May 14. **Drs. Lowell Martin** and **Frederick Eihl,** both of Moline, were re-elected secretary and treasurer, respectively.

At the annual convention of the Iowa Association of Medical Assistants, held in Sioux City on May 17, **Dr. Floyd A. Springer,** of Des Moines, president of the Iowa Radiological Society, was the banquet speaker. **Mrs. Geraldine Smith,** of Iowa City, succeeded to the presidency of the organization; **Mrs. Edris Clawson,** of Mason City, was chosen as president-elect; and **Mrs. Robert Beardsley,** of Burlington, was elected recording secretary.

Dr. Anthony H. Kelly, of Sioux City, was chosen as president of the Siouxland Heart Council at a luncheon meeting in the Sheraton-Martin Hotel on April 29.

The 1958 edition of the Anthon High School annual, THE BOMB, has been dedicated to **Dr. Francis P. Cauley.** The citation composed by the students said, in part, "He is always a friend and always has time to visit with us after prescribing for our ills. We . . . hope he is always present to aid us in our growth."

By offering to purchase their shares at face value, **Drs. Harley G. Feldick, J. O. Moermond** and **K. J. Kroack,** of Buffalo Center, have undertaken to refund the money which people who invested $100 or less contributed toward the building of the local hospital.

After 13 years of service, **Dr. William H. VanTiger** has resigned from his position as physician at the Eldora State Training School because of ill health. **Dr. David H. Glenn** is currently taking his place without formal appointment.

Dr. J. C. Donahue, of Centerville, terminated his practice on July 1. He suffered a severe heart



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Basic Principles in General Surgery, Two Weeks, October 13
Esophageal Surgery, One Week, September 15
Thoracic Surgery, One Week, September 22
Gallbladder Surgery, Three Days, November 3
Surgery of Hernia, Three Days, November 6
General Surgery, Two Weeks, November 10; One Week, October 27
Fractures & Traumatic Surgery, Two Weeks, October 20
Treatment of Varicose Veins, Two Days, September 15
American Board Review Course, Two Weeks, November 10
Blood Vessel Surgery, One Week, October 20
GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, September 8
Vaginal Approach to Pelvic Surgery, One Week, October 6
General & Surgical Obstetrics, Two Weeks, September 22
MEDICINE—General Review Course, Two Weeks, October 20
Electrocardiography, Two Week Basic Course, October 6
Gastroscopy & Gastroenterology, Two Weeks, November 3
American Board Review Course, One Week, September 29 (for Part I Candidates Only)
DERMATOLOGY—Clinical & Didactic Course, Two Weeks, November 3
RADIOLOGY—Diagnostic X-Ray, Two Weeks, September 22
Clinical Uses of Radioisotopes, Two Weeks, September 29
UROLOGY—Two-Week Intensive Course, October 13
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attack recently, while visiting his son, **Dr. Richard Donahue,** a flight surgeon with the U. S. Navy stationed in El Torro, California. The elder Dr. Donahue has served the Centerville community for 33 years.

An investigating committee consisting of **Paul M. Kersten,** M.D., Fort Dodge, representing the ISMS, **Mr. Roger P. Birdsall,** Waterloo, representing the State Bar Association, **L. D. Goodstein,** Ph.D., Iowa City, representing the Iowa Psychological Association, **J. D. Mahoney,** M.D., Council Bluffs, representing the Iowa Neuropsychiatric Association, and **Mr. Ernest Carter,** Council Bluffs, representing the Iowa Welfare Association, has endorsed policies recently instituted at the Glenwood State School by **Mr. Alfred Sasser, Jr.,** the superintendent, and **Dr. Frank Jacobson,** who for a short time was medical director. Its report reprimanded **Dr. Ward DeYoung,** of Glenwood, for seeking help from the local press and legislators following his dismissal from the medical staff there, but before the report had been issued, Dr. Jacobson had resigned and Dr. DeYoung had been reinstated.

The professional relations director for ISMS and Blue Shield, **Mr. Wilbur R. Quinn,** and his wife were injured in a car-truck collision at about 10:40 a.m. on June 7 three miles west of Anita on Highway No. 6. Mr. Quinn's left kidney was so badly damaged as to require its removal, and he experienced postoperative respiratory difficulties. **Mrs. Quinn** suffered facial lacerations and shock. The truck driver's injuries were not serious enough to require his hospitalization, though the truck had left the road along with the car.

The town of Marion has three new physicians. **Dr. Thomas G. Wright,** who recently finished his internship at Mercy Hospital, Cedar Rapids, has taken over the practice of **Dr. James R. Tabor.** Dr. Tabor is returning to S.U.I. for a three-year EENT residency after three years practice there.

Dr. Charles Anthony Merulla, a 1957 graduate of the S.U.I. College of Medicine who has been interning at St. Luke's Hospital, Cedar Rapids, has opened an office at 998 Eighth Avenue, in Marion, and **Dr. Gerald C. Sunner,** who just completed his internship at Mercy Hospital, Cedar Rapids, has opened one at 479 Tenth Avenue there.

Dr. Ivan H. Sheeler, who has been head of the medical staff at the Des Moines V-A Hospital, assumed the duties of head physician at the Soldiers Home at Marshalltown on July 1. He replaces **Dr. L. L. Bowie,** a Life Member of the Iowa State Medical Society, who is retiring after holding the post for 14 years.

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From the legend on a group picture published in the June 8 edition of the CEDAR RAPIDS GAZETTE, the JOURNAL has learned that **Dr. Clarence Douglas**, who finished his internship at a Cedar Rapids hospital last month, plans to start practice in Belle Plaine. No details were given.

Dr. and Mrs. M. O. Larson, of Hawarden, spent two weeks during June at a resort near Alexandria, Minnesota.

On July 3, the community of Prescott will hold a parade, a testimonial dinner and an evening program in honor of **Dr. A. W. Brunk**, who has practiced there for 30 years.

A story in the DES MOINES REGISTER for June 8 described the art-importing business in Washington, Iowa, in which **Dr. Guy E. Montgomery** is a partner. Since its beginning in 1955, the firm has grown to be what was described as the largest importer of Indian brass in this country.

At a medical meeting in the Winneshiek Hotel at Decorah on May 20, the principal speakers were **Dr. Samuel P. Leinbach**, of Belmond, an ISMS trustee; **Dr. Tom D. Throckmorton**, of Des Moines, executive vice-president of Blue Shield; and **Dr. F. C. Coleman**, of Des Moines, chairman of the ISMS Committee on Legislation and an AMA delegate. All doctors and their wives from Winneshiek, Howard and Allamakee Counties were invited.

Dr. Mary Ann Croker, of Manchester, was the subject of a profusely illustrated feature story in the DES MOINES REGISTER for Sunday, June 8.

On May 12, **Dr. R. J. Fisch** diagnosed the illness of one of his LeMars patients as a mild case of diphtheria. Though the afflicted man is a janitor at Westmar College, Dr. Fisch didn't expect to find other cases. A month or more earlier, several were diagnosed in Sioux City.

Dr. W. L. Bierring, of Des Moines, who recently returned home from a speaking trip in the Near East, says that the three last of his eight days in Beirut (May 12-14) were "the most harrowing experience of my life." He went on to say, "I wouldn't want to go back there—at least not for a while. I didn't get a night's sleep during that period, and was exhausted when I left there." When he left Lebanon, Dr. Bierring prolonged his stay in Istanbul so that he might rest, rather than spending some time in western Europe as he had planned to do before returning to this country. He will reach 90 years of age on July 15.



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Dr. J. I. Limburg, who was badly injured in an auto accident near Grand Junction last October, returned in mid-June from a Hawaiian vacation and has resumed practice in Jefferson. **Dr. Robert W. Burke,** who has cared for Dr. Limburg's patients during the past half-year, will practice with him.

Dr. Percy G. Harris, who finished his internship at St. Luke's Hospital, Cedar Rapids, at the end of June, will open an office shortly at 426 Guaranty Building there.

Dr. H. Kirby Shiffler, a Des Moines obstetrician and gynecologist, is a patient at Iowa Methodist Hospital. His illness was diagnosed on June 20 as infectious mononucleosis.

Dr. and Mrs. C. F. Watts, of Marengo, returned on June 6 from a five-weeks tour of Europe, where Dr. Watts attended the meeting of the International College of Surgeons, in Brussels.

On June 17, the golden anniversary of the closing of the Keokuk College of Physicians and Surgeons, all of the living alumni of the school were invited to a reunion as the guests of the doctors now practicing in Keokuk. **Dr. L. C. Pumphrey** was in charge of arrangements.

The Johnson County Medical Society held its annual picnic at the home of **Dr. George C. Albright,** in Iowa City, on the evening of June 4.

At the sixth annual clinical meeting of the American College of Obstetricians and Gynecologists, held at the Hotel Statler in Los Angeles April 21-23, **Dr. William C. Eller,** of Waterloo, had charge of arranging the technical exhibits. The Iowa chairman and vice-chairman for the College are, respectively, **Dr. Parker K. Hughes,** of Des Moines, and **Dr. Walter J. Balzer,** of Davenport.

Dr. Dallas L. York, who has practiced for six years in Villisca, joined the staff of the Creston Clinic early in June.

Trap and skeet shooting was the featured entertainment at the annual picnic of the Des Moines County Medical Society, held at the Crystal Lake Club, in Gulfport, Illinois.

Dr. Guy E. McFarland, Jr., of Ames, was chosen by the ISMS Board of Trustees, at its June meeting, to replace **Dr. Bruce F. Howar,** of Webster City as Fifth District Councilor. Dr. Howar had resigned.

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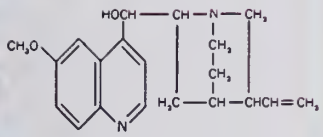
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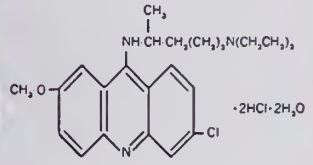
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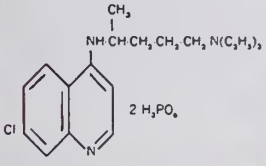
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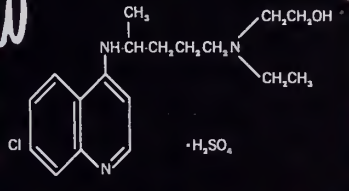
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1. A.L., Schuchter, S.L., and Harrison, J.W.: *Cleveland Clin. Quart.* 24:98, Apr., 1957.
2. A.G., and Alexander, L.J.: The Schoch section, *Bull. A. Mil. Dermatologists* 5:25, Nov., 1956.
3. Theodore: *Arch. Dermat.* 75:[illegible], June, 1957.

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An editorial in the May issue of the ROCKY MOUNTAIN MEDICAL JOURNAL* recommends a combination of activated charcoal, magnesium hydroxide and tannic acid which it says is "the universal antidote for use in accidental poisonings" for purchase by patients generally. It is marketed under the brand name "Res-Q," by Boyle and Company, and can be bought at drug stores without prescription.

Dr. R. Samuel Johnson, director of the Denver Poison Control Center, is quoted in the editorial as saying, "This product can serve a very useful purpose in the treatment of accidental poisonings if it is used according to the directions on the label," but he goes on to say that the dose recommended is adequate only for children. For adults, he says, two packets should be used.

Res-Q comes in a distinctive red and white tinfoil envelope. "When purchased," the editorial says, "it should be placed in a prominent spot, perhaps thumb-tacked or taped to the back of the medicine cabinet door, and not lost behind the aspirin and the Bandaids. We hope that every family with small children will keep one or two of these on hand, and we hope, in addition, that it will serve as a constant reminder to parents to keep potential poisons out of reach."

* Editorial: "To the Res-Q." ROCKY MOUNTAIN M.J., 55:29-30, (May) 1958.

DEATHS

Dr. Lewis Lancaster Leighton, 65, a surgeon who had practiced for 25 years in Fort Dodge and who had been suffering from cancer for about six months, died on June 10 at Mercy Hospital there.

Dr. Clarence Linden Heald, 90, died unexpectedly at his home in Sigourney on May 23. He had been in poor health since breaking his hip on December 31, 1954. He was a Life Member of the Iowa State Medical Society.

Dr. William C. Egloff, 57, who had practiced internal medicine in Mason City since 1932, died following a heart attack at his summer home near Park Rapids, Minnesota, on May 19.

Dr. Clare E. Knouf, 40, who practiced at Lake City from 1947 until last January when he began a residency at the Iowa City V-A Hospital, died in Iowa City on June 4.

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Thursday at 1:15 p.m.
"SUPERSTITION OR SCIENCE"

July 3 ..... Quine
July 10 ..... Electricity and Magnetism
July 17 ..... Cancer
July 24 ..... Goiter
July 31 ..... Anesthesia

WSUI—Iowa City, Iowa
Monday at 3:30 p.m.
"HELP YOURSELF TO HEALTH"

July 7 Success Stories From the Carolina Hills
July 14 ..... Working Together for Health
July 21 ..... Projects for Your Health Council
July 28 ..... Health—The American Way

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

July 2 .... Anesthesiology and Recovery Room
July 9 ..... Juvenile Delinquency—Part I
July 16 ..... Juvenile Delinquency—Part II
July 23 ..... Boy-Girl Relations—Part I
July 30 ..... Boy-Girl Relations—Part II

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

July 6 ..... Minor Surgery
July 13 .... Anesthesiology and Recovery Room
July 20 ..... Juvenile Delinquency—Part I
July 27 ..... Juvenile Delinquency—Part II

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Sunday at 1:00 p.m.

July 6 ..... Chest Surgery
July 13 ..... Alcoholism
July 20 ..... Pregnancy
July 27 ..... Taking Care of Baby at Home

The foregoing schedules are subject to change at the discretion of the station managers.



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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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ALLERGIES APPEAR TO BE SPREADING

According to the current issue of PATTERNS, a monthly booklet of medical statistics and charts prepared for doctors by Parke, Davis & Company, about one in every 10 Americans is now afflicted with some form of allergy, and the number appears to be increasing.

One possible explanation for the growing incidence is the widespread substitution of cow's milk for breast milk in infants' diets. Seven times more infants develop allergic eczema from the former than from the latter, the report says, and 80 per cent of the afflicted infants develop respiratory allergies later in life. Other possible explanations include the growing diversity of foods in the average diet.

What factors trigger an allergic attack? Foods are the greatest offender, accounting for the onset of an attack in more than 60 per cent of cases; inhalant sensitizers account for 23 per cent; and contact allergens are responsible for about 15 per cent. Emotional stress also plays a role.

"Over 50 per cent of allergy patients give a history of allergic diseases in other members of their families," PATTERNS reports. It goes on to to say that an allergic tendency seems to be transmitted twice as frequently through women as through men.

Allergic diseases are seldom fatal, but they rank third in prevalence among chronic diseases, and account for more than 100,000,000 days of disability each year, according to the publication.

STATISTICS ON PHYSICIANS' LICENSES

The American Medical Association's Council on Medical Education and Hospitals reports that 7,445 new physicians' licenses were issued in the United States during 1957. Of that number, 5,872 were in consequence of written examinations, and the remaining 1,583 were given out on the basis of interstate reciprocity.

Since about 3,500 doctors are reported to have died during the year, and since the issuance of licenses on the basis of reciprocity seldom represents the entry of new physicians into practice, the net gain can be assumed to have been in the neighborhood of 2,250. Even that, probably, is too high a figure, for no count is made of doctors who terminated practice because of old age, illness or a desire to return to school.

Three medical schools had graduates for the first time in 1957. They are the Universities of Missouri, Saskatchewan and Mississippi. Of the graduates who passed examinations last year, 1,345 had received their training outside the United States, but not all of those were aliens. That number was 333 greater than the corresponding number for 1956.

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*Finnerty, F. A. Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957.

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SHORT COURSE ON CARE OF ATHLETES

On August 25, 26 and 27, the University of Colorado Medical Center, in Denver, will be the site of a conference for team physicians, coaches and trainers on "The Prevention and Management of Athletic Injuries." On the faculty, the headliners will be Don H. O'Donoghue, M.D., head of orthopedic surgery at the University of Oklahoma medical school; Thomas B. Quigley, M.D., assistant clinical professor of surgery at Harvard and surgeon at Peter Bent Brigham Hospital, Boston; Loyal W. Combs, M.D., director of the student health service at Purdue University; and James B. Silman, M.D., athletic physician for the public schools at Waxahachie, Texas.

Some of the topics that will be covered, either in formal papers or in panel discussions, are: "Frequency and Nature of Athletic Injuries," "Field Examination and Therapy," "Conditioning," "Medical Organization for an Athletic Program," "Protective Equipment" and "Prevention of Athletic Injuries." In addition, the treatments of injuries in the various body areas will be taken up individually and in considerable detail.

The fees for registration and tuition total $35, and they are payable in advance. The Denver Convention and Visitors Bureau, 225 West Colfax Avenue, will assist registrants in making advance housing reservations.

HEART RESEARCH GRANTS

Fifteen Iowa heart scientists have been granted a total of $51,155 in research money for the coming 12 months, the Iowa Heart Association has announced.

Heart research grants this year are distributed over six major locations, as compared with three sites a year ago. The research funds are a portion of the money raised in Iowa last February during the regular Heart Fund campaign.

The recipients of the grants include William E. Connor, M.D., Iowa City; T. E. Rogers, Ph.D., Mt. Vernon; A. W. Horsley, M.D., Iowa City; Paul W. Willard, Iowa City; Kenne'h M. Cook, Ph.D., Cedar Rapids; Clifford L. Meints, Ph.D., Indianola; John E. Gustafson, M.D., Des Moines; George N. Bedell, M.D., Iowa City; J. L. Ehrenhaft, M.D., Iowa City; Wayburn S. Jeter, Ph.D., Iowa City; William B. Bean, M.D., Iowa City; E. O. Theilen, M.D., Iowa City; Chen-shu Chang, M.D., Iowa City; Frank C. Coleman, M.D., Des Moines; and Charles H. Read, M.D., Iowa City.

NUTRITION CONFERENCE AT MADISON

The fifth annual symposium of the AMA Council on Foods and Nutrition will take place at the University of Wisconsin, in Madison, on October 16. The topics are to be the factors involved in formation and in diseases of bone.



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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

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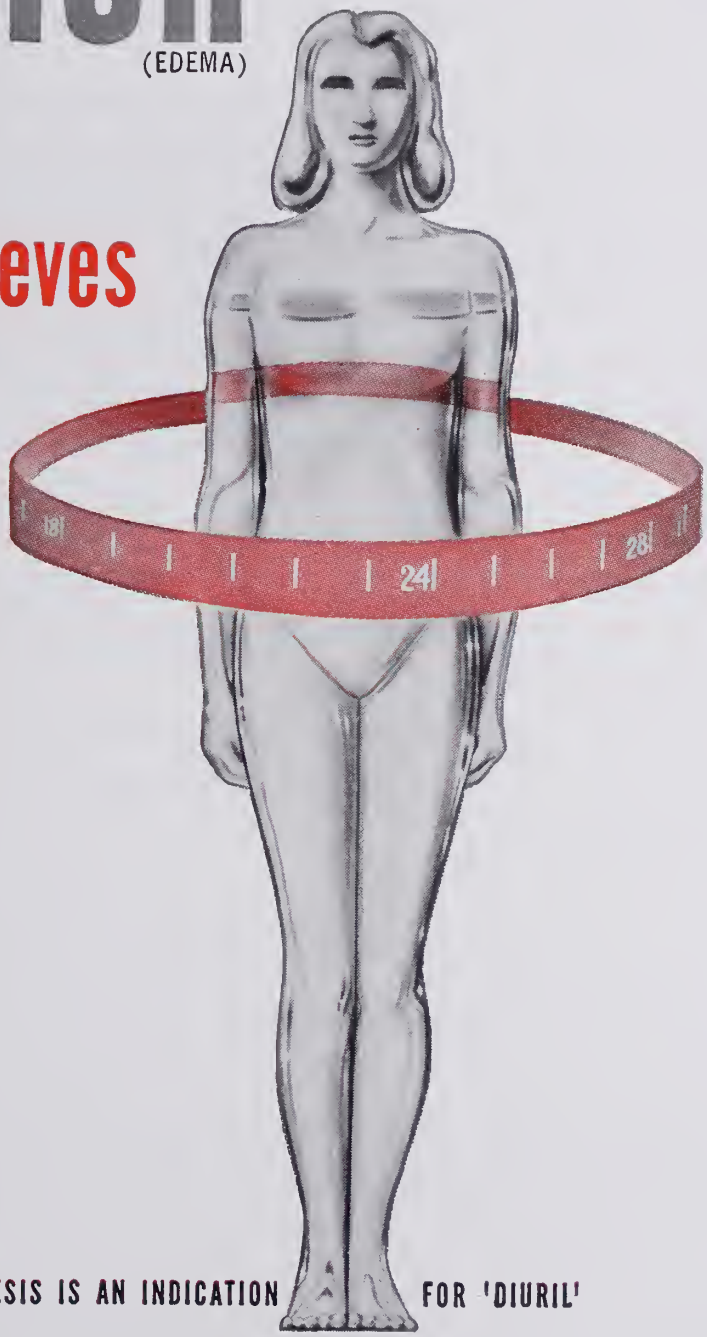
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Coming Meetings

(Continued from page 364)

July 22-25	**Microbiology and Immunology in Clinical Medicine.** U. of California, San Francisco.
July 23	**American Society of Facial Plastic Surgery.** New York City
July 23-25	**Emergency Surgery—Acute Injuries.** U. of Tennessee College of Medicine, Memphis
July 28-Aug. 1	**Technics of Surgery.** U.C.L.A., Los Angeles
July 28-Aug. 1	**Refresher Course in Anatomy.** U. of California, San Francisco
Aug. 4-7	**International Committee of Military Medicine & Pharmacy.** Brussels, Belgium
Aug. 4-9	**International Congress of Microbiology.** Stockholm, Sweden
Aug. 4-12	**Selected Topics in Physiology and Pharmacology.** U. of California, San Francisco
Aug. 4-15	**Cystoscopy.** Cook County Graduate School of Medicine, Chicago
Aug. 5-21	**Refresher Course, U. of Southern California School of Medicine.** Honolulu (and on board the *S. S. Matsonia* enroute there)
Aug. 11-14	**National Medical Association.** Hotel Schroeder, Milwaukee
Aug. 11-16	**Seventh Annual Western Cardiac Conference.** U. of Colorado Medical Center, Denver
Aug. 11-16	**World Federation of Occupational Therapists.** Copenhagen, Denmark
Aug. 12	**Pan-American Congress of Otorhinolaryngology & Bronchoesophagology.** Rio de Janeiro, Brazil
Aug. 12-24	**Fourth World Assembly of Israel Medical Association & Israel's Tenth Anniversary Celebration** (American Physicians Fellowship, Inc.). Tel Aviv, Jerusalem and Haifa
Aug. 15-20	**World Medical Association.** Copenhagen, Denmark
Aug. 18-21	**American Hospital Association.** Palmer House, Chicago
Aug. 18-30	**Course I Surgical Technic in General Surgery.** Cook County Graduate School of Medicine, Chicago
Aug. 18-31	**Electrocardiographic Interpretation.** Michael Reese Hospital, Chicago
Aug. 19-22	**Biological Photographic Association.** Shoreham Hotel, Washington, D. C.
Aug. 20-23	**Internal Medicine.** U. of California Residential Conference Center, Lake Arrowhead, California
Aug. 20-27	**International Congress of Genetics.** Montreal
Aug. 21-23	**Chemical Organization of Cells, Normal and Abnormal.** Madison
Aug. 21-23	**Western Regional Meeting, International College of Surgeons.** Riverside Hotel, Reno
Aug. 24-29	**Thirty-sixth Annual Session, American Congress of Physical Medicine & Rehabilitation.** Bellevue Stratford Hotel, Philadelphia
Aug. 24-29	**World Federation for Mental Health.** Vienna, Austria
Aug. 25-27	**Second Annual Postgraduate Course, Prevention and Management of Athletic Injuries for Team Physicians, Coaches and Trainers.** U. of Colorado Medical Center, Denver
Aug. 27-29	**Anesthesiology.** U. of California, Los Angeles
Aug. 27-29	**Northwest Proctologic Society.** Sun Valley, Idaho
Aug. 29-30	**North Pacific Society of Internal Medicine.** Victoria, British Columbia

ABSTRACT OF AMA JUDICIAL COUNCIL OPINIONS

The June 7 issue of J.A.M.A. contained the revised version of the AMA Principles of Medical Ethics, together with the abstracted and annotated opinions and reports of the AMA Judicial Council that are intended by the AMA House of Delegates to be used as elaborations of the Principles.

This is the material that was discussed in an editorial in the January, 1958, issue of this JOURNAL.*

All doctors—and particularly those who are serving on boards of censors and similar committees—are urged to be sure of keeping the June 7 J.A.M.A. for reference.

* Editorial: "Revised Principles of Medical Ethics." J. IOWA M. SOC., 48:34-35, (Jan.) 1958.

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LIST YOUR WANTS

(Additional Want Ads on page lvii)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

LOCUM TENENS. Man needed to take over general practice during the month of August. Good salary or percentage. Living quarters can be arranged. Address No. 1,087, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

FOR SALE: Office equipment and practice in a growing county-seat town of 7,000 people in northeast Iowa. The present physician is definitely retiring after practicing in the town since 1915. Address No. 1,093, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Microscope, sterilizer, examining table and other office instruments. Give age and price. Address No. 1,091, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER wishes to sell combination home and office in central Iowa town. Practice is to be included in the sale. Community is predominantly Lutheran, but the town has Catholic, Methodist and Presbyterian churches as well. Collections are excellent. Address No. 1,086, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

INTERNIST wanted by a clinic group which owns and operates a 150-bed hospital in a Texas town of 12,000 people. This is an opportunity for a doctor to join the clinic as a partner and also to become a part of a growing community. Address No. 1,085, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

WANTED: General practitioner to take over active practice in fast-growing community. Great deal of obstetrics and pediatrics. Five minutes from excellent hospital. New ground-floor office has 1,000 ft. of floor space, air-conditioning, ample parking space. All types of recreational and social activities available. Leaving for personal reasons. Address No. 1,089, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER will be needed soon in northwest Iowa town in large and rich farming territory. Only physician leaving to take things easier after 26 years of successful practice. Ideal set up for two young doctors. Office available on edge of business district, if desired. Will introduce and help get started this summer. Address: H. Wolfson, M.D., Kingsley, Iowa.

GENERAL PRACTICE, office space, medical equipment and supplies available in southern Minnesota town of 8,000. Address No. 1,103, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

PEDIATRICS resident would like to acquire old copies of PEDIATRIC CLINICS OF NORTH AMERICA. Write or call R. K. Lechelt, M.D., Raymond Blank Memorial Hospital for Children, Des Moines 14.

FOR SALE: House, office and equipment in small north-central Iowa town with large tributary area. The office is fully equipped for a general practice; the house is ranch style and has two bedrooms. Address No. 2,001, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: Portable G-E x-ray. Perfect condition. Brand new tube. Small down payments and monthly installments. Address No. 2,000, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER can find splendid opportunity in northwest Iowa town of 10,000, where there are now only three GP's in active practice. Three manufacturing plants, a wholesale grocery and railroad shops insure economic stability of the community. Fine hospital, recreational facilities of all sorts. Office and equipment of recently deceased physician for sale or lease, and four-room furnished apartment for rent while the doctor finds preferable housing. Address No. 2,002, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

EXCELLENT OPPORTUNITY in group practice for a young general practitioner to replace a retiring partner in a growing Nebraska town of 15,000. Good salary to start; partnership as quickly as desired. Address No. 1,084, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER needed by a town of 1,500 people close to Des Moines. Doctor with long-established practice died recently. Office for rent, and medical records and experienced nurse available. Hospital 10 miles away. The town now has no doctor of medicine. Address No. 1,096, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER, 30 years of age, desires location with small group, or a solo practice. Iowa graduate, family, veteran. One year of GP residency plus one year of general practice. Available in fall of 1958. Address No. 1,094, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

LOCUM TENENS: Will do locum tenens in Waterloo-Cedar Falls by the week or month. Local references. Address: No. 1,095, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

DOCTOR OF MEDICINE wanted by Eldon, Iowa, a railroad terminal town of 1,600. The man who locates there can arrange to serve the C&RI Railway and be county health director as well as carry on a private general practice. Excellent territory; 5-room office available. Address: Robert Weidenbach, Eldon Community Club, Eldon, Iowa.

LOCUM TENENS for first two or three weeks in August desired by SUI graduate who is now in residency training at the University of Michigan. Address: No. 1,099, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

LIST YOUR WANTS

(Additional Want Ads on page lvi)

WANTED: Physician for Admitting Office in 386-bed general medical and surgical hospital. Forty-hour week; 30 days' annual vacation; sick leave; excellent retirement program with life insurance. Good school system. Salary dependent upon experience—minimum $9,000. Apply to Manager, Veterans Administration Hospital, Des Moines 9, Iowa.

FOR SALE: General practice and all office equipment and furniture. County seat town; good schools and churches; one other M.D. Leaving July 1 for residency. Address No. 2003, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Physician for treatment and examination in the Outpatient Service in 386-bed general medical and surgical hospital. Forty-hour week; 30 days' annual vacation; sick leave; excellent retirement program with life insurance. Good school system. Salary dependent upon experience—minimum $9,000. Apply to Manager, Veterans Administration Hospital, Des Moines 9, Iowa.

LOCATION WANTED: SUI graduate (1949) desires radiology positions with one or more small hospitals, plus location for general practice. Has completed two-year radiology residency and has had four years of rural general practice experience. Service obligation completed. Address No. 1,100, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

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WANTED: Obstetrician-gynecologist under the age of 40, board qualified or certified, to practice in an eastern Oklahoma area with a population of 90,000. Will associate with only obstetrician within 40 miles. Heart of Lake Country. Address No. 1,088, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

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1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

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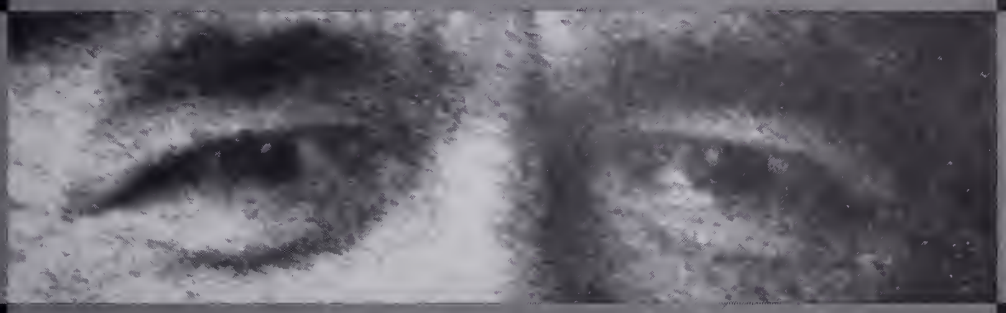
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Source—Hyman, M.: Some Aspects of Psychiatry in General Practice, GP *16*:83 (Oct.) 1957.

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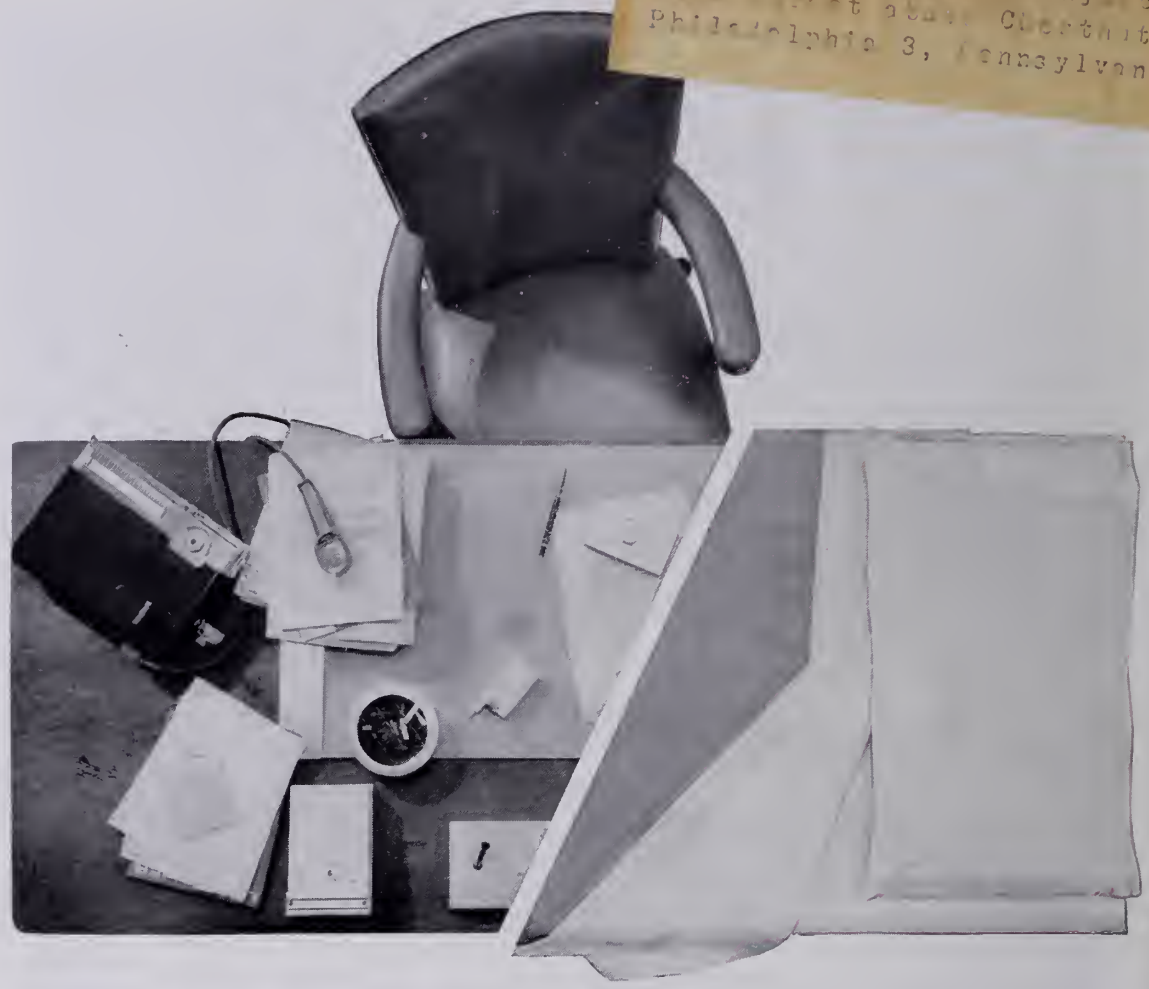
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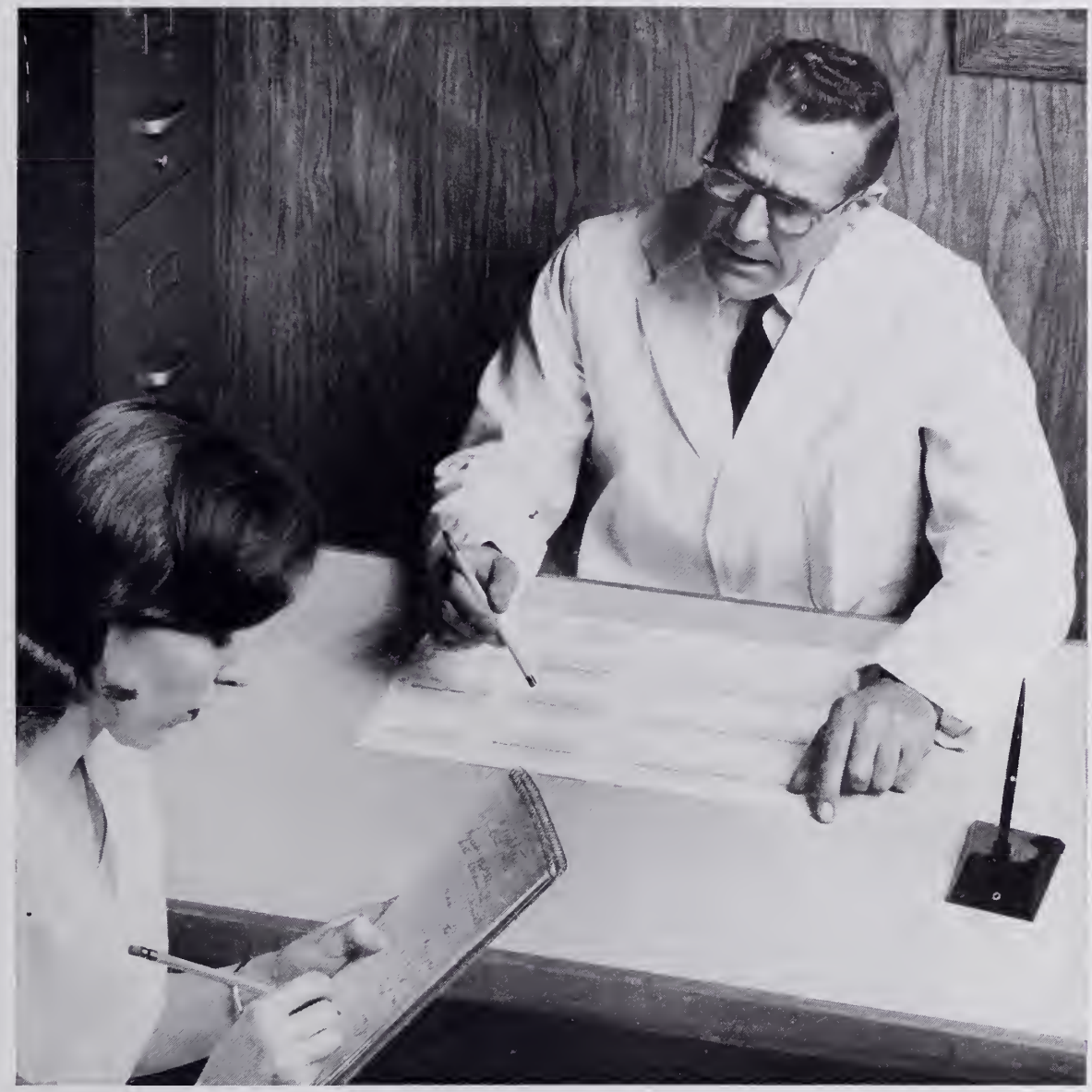
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references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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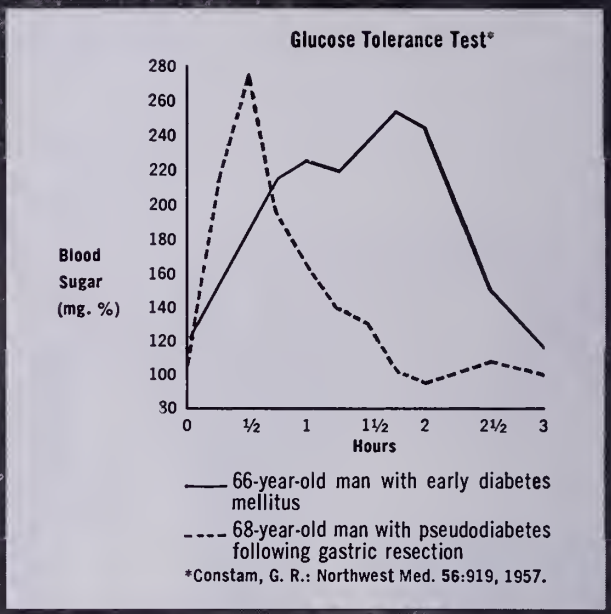
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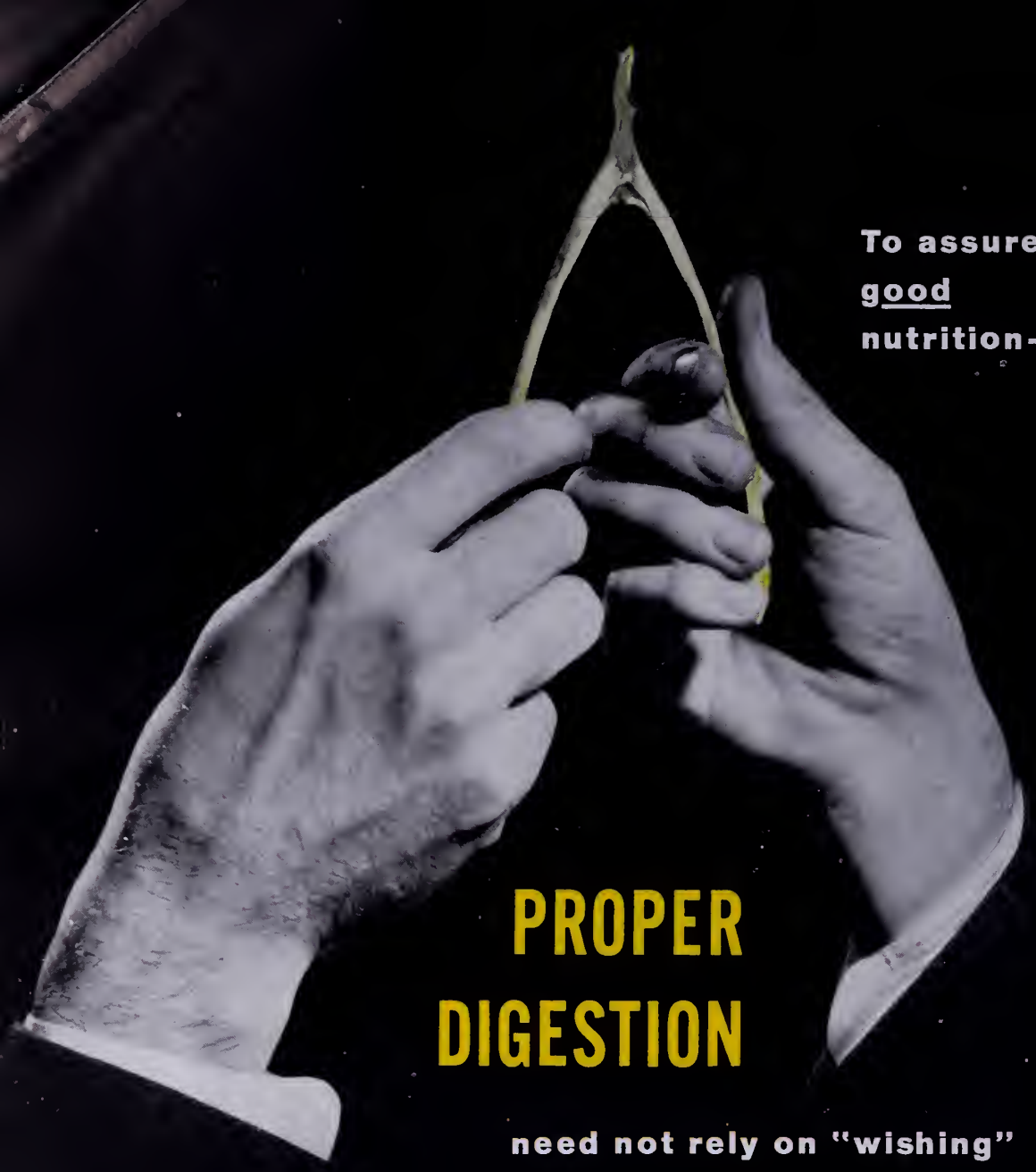
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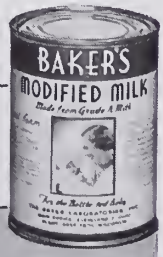
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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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ANTIEMETIC DOSAGE:
Intravenous: 8 mg. average single dose
Dosage range 2-10 mg.
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If subsequent parenteral dose is needed, one-half the original dose will usually suffice
Oral: 10-20 mg. initially; then 10 mg. t.i.d.

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PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

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CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

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American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

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"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
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"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

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See
MD
Medical Newsmagazine,
March 1958 Issue,
Pages 76 – 77.



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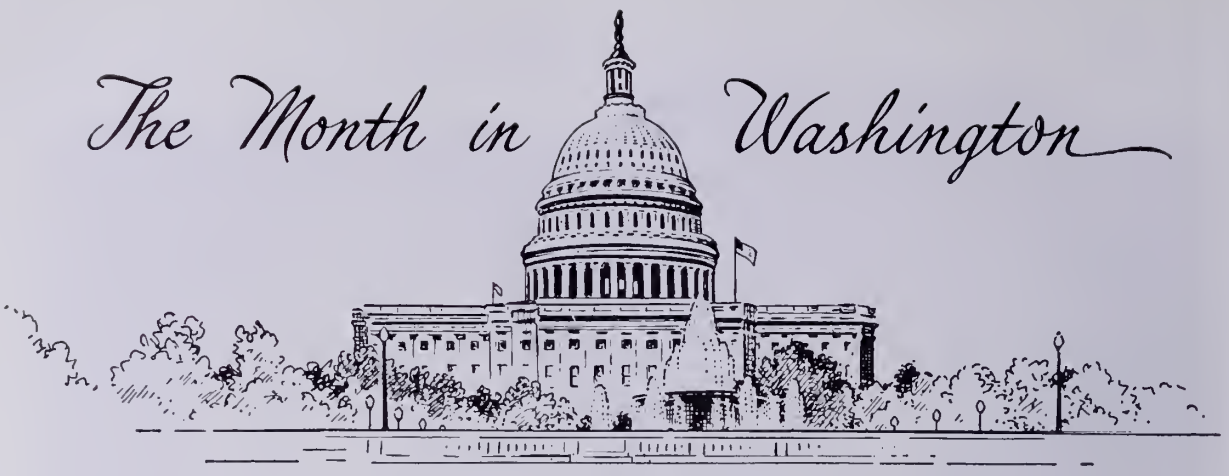
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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

The Month in Washington



Washington, D. C.—For the first time since the idea was proposed more than seven years ago by President Truman and Oscar Ewing, legislation to tack a hospital and medical service program onto social security has received a thorough airing before a Congressional committee.

For 11 days, the House Ways and Means Committee listened to testimony on this and other suggested changes in the law. The hospitalization plan —now identified as the Forand Bill, for its sponsor, Rep. Aime J. Forand (D., R. I.)—was by far the most controversial issue. It came up repeatedly, and each time was the signal for either sharp questions or praise from Mr. Forand, depending on what the particular witness thought about the bill.

At the end of the hearings, it appeared that a majority of the committee was not inclined to press for enactment of the Forand bill, although there remained the possibility of a sentiment change. At this writing, the prospect is that a bill may be enacted to raise both social security and old-age assistance payments, with a $600 increase in the taxable share of salaries or self-employment income to meet the extra OASI cost.

What did the Forand hearings produce?

For one thing, the proponents and opponents lined up in columns to be identified. The one important exception was the American Hospital Association. The AHA specifically opposed the Forand Bill "at this time," but left itself room for maneuvering.

The hospital witness, Ray Amberg, president-elect of the AHA, and Dr. James P. Dixon, chairman of its committee to study health needs of the aged, said their conclusion was that federal help of some sort was needed to finance the health care of the aged, and that the social security approach might be the ultimate decision.

However, for the present the hospital spokesmen proposed that the Ways and Means Committee set up a special advisory committee—consisting of health personnel and others—to bring together all information on the health problems of the aged, and to study the data and make recommendations to the Committee before January 1, 1960.

The American Medical Association led the parade of opponents of the Forand Bill, and its witnesses, Drs. Leonard Larson, a trustee, and Frank Krusen of the Mayo Clinic, were subjected to close but not unfriendly questioning by Mr. Forand.

At one point Dr. Larson, the new chairman of the AMA Board of Trustees, told Mr. Forand: "As chairman, I shall devote all my energies to solving this problem and other problems of medical care plans in general. This is my primary interest. I rise or fall on what happens in this field."

Lined up with the AMA in opposing the Forand plan (in addition to the AHA) are the American Dental Association, Blue Shield, the insurance industry in general, the U. S. Chamber of Commerce and a number of other business and professional groups.

The AFL-CIO appears to be the backbone of forces working for the Forand Bill. Labor's spokesmen, however, have the backing of several welfare organizations (plus the Illinois and Massachusetts welfare directors), the American Nurses Association and the Physicians Forum, among others. The latter group also informed the committee that it favors compulsory social security coverage for physicians.

NOTES

A highlight of a testimonial luncheon for Surgeon General Burney was the first public appearance of Dr. Gunnar Gundersen as new AMA President. Dr. Gundersen praised Dr. Burney as a public health officer and as a government official who did not lose contact with the private medical community. The affair was in recognition of Dr. Burney's election as president of the World Health Assembly.

* * *

For the time being, neither doctors nor hospitals will have the exclusive radio frequencies they are attempting to obtain. They were temporarily turned down by the Federal Communications Commission in one category, but will continue their efforts to obtain the frequencies for emergency as well as day-to-day communications.

* * *

It was late in the session before Congress indicated it would continue the Hill-Burton program.

Legislation virtually certain of enactment would extend the operation for three years, and authorize long-term loans to non-profit sponsors who for religious or other reasons do not want federal grants.

* * *

While avoiding a "campaign against smoking," the U. S. Public Health Service is going to pass on to the public all the information it has on the subject. Its most recent effort in this direction was release of a report, based on studies of 200,000 veterans, which showed a much higher death rate for "cigarette only" smokers.

ILLINOIS ASSEMBLY IN OTOLARYNGOLOGY

The Department of Otolaryngology at the University of Illinois College of Medicine, Chicago, has announced that its Annual Assembly in Otolaryngology will be held from September 29 through October 5, 1958. The Assembly will consist of an intensive series of lectures and panel discussions concerning advancements in otolaryngology, and evening sessions will be devoted to surgical anatomy of the head and neck, and histopathology of the ear, nose and throat.

Physicians who are interested in attending should write direct to the Department, 1853 West Polk Street, Chicago 12.

THE THIRD AMA MEDICOLEGAL FILM

Traumatic neurosis is the subject of the third and newest film in the AMA-American Bar Association medicolegal series produced by the William S. Merrell Company. It was shown for the first time during the AMA meeting in San Francisco.

The film, entitled "The Man Who Didn't Walk," is especially interesting because traumatic neurosis is not universally accepted as a clinical entity; yet, the picture is highly informative, because the device of traumatic neurosis is frequently used today by claims-seeking plaintiffs.

Mr. C. Joseph Stetler, director of the AMA Law Department, says the film focuses attention on one of the most complicated of legal problems in medicine. It points up the fact that both physician and attorney must conduct complete examinations and collaborate in pre-trial conferences so that the testimony will help the jury decide the problem.

State and county medical societies can now arrange bookings by writing either to the AMA Film Library, 535 North Dearborn Avenue, Chicago 10, or to the William S. Merrell Company, Cincinnati 15.



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Rapid and prolonged relief — with less intolerance. The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

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'CARDILATE'*

for THE PROPHYLAXIS OF ANGINA PECTORIS

'Cardilate' tablets  shaped for easy retention in the buccal pouch

"... the degree of increase in exercise tolerance which sublingual erythrol tetranitrate permits, approximates that of nitroglycerin, amyl nitrite and octyl nitrite more closely than does any other of the approximately 100 preparations tested to date in this laboratory."

"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.: Nitroglycerin and Other Nitrites in the Treatment of Angina Pectoris, Circulation (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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Personals



Dr. Helen Johnston, of Des Moines, went to London late in June to attend the meeting of the Medical Women's International. Before returning, she planned to tour Scotland, Wales and Ireland.

Dr. John E. Gustafson, a Des Moines pediatrician and cardiologist, has succeeded **Dr. Harold Margulies** as president of the Polk County Heart Council. **Dr. Charles A Nordin** was reelected and **Dr. W. H. Myerly** was newly elected to the organization's board for two-year terms.

At the AMA meeting in San Francisco, a special certificate was awarded to **Messrs. F. W. Kent, James Kent** and **Jack Davis,** of the S.U.I. Photographic Service, and **Mr. Paul Ver Vais,** a medical artist, for their presentation of medical information in an exhibit on ulcerative colitis. The project had been developed by **Dr. James A. Clifton,** of the S.U.I. Department of Internal Medicine, and **Drs. R. C. Hickey, George Thornton** and **R. T. Tidrick,** of the Department of Surgery.

Dr. W. D. Paul, professor of medicine and team physician at S.U.I., attracted large audiences to his exhibit on prevention and treatment of ankle sprain at the San Francisco meeting of the AMA. **Mr. Doyle Allsup,** the S.U.I. athletic trainer, helped Dr. Paul with his demonstrations.

Dr. and Mrs. Harlan Johnston and their daughter **Margaret,** of Des Moines, spent a short vacation in Colorado during June. The Johnstons' son **Charles** accompanied them to Denver, where he entered the U. S. Air Force Academy.

On his eightieth birthday a few weeks ago, **Dr. Arthur Steindler,** of Iowa City, professor emeritus of orthopedic surgery at S.U.I. and a world-renowned authority in his field, announced that he has no intention of closing the private practice in which he has engaged since 1949, when he left the University faculty after 35 years of service.

In addition to the public patients whom he treated at University Hospitals, Dr. Steindler says he has seen 70,000 individuals professionally. One of his most remarkable accomplishments is his knowledge of languages. He has an especially fine command of Latin, and he is fluent in Spanish,

Doctor . .

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  *(Available up to $25,000 principal sum which doubles to $50,000.)
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French, German, Italian and Bohemian, in addition to English.

Dr. Frank W. Reibold arrived in Carroll late in June to take over the x-ray practice of **Dr. William C. Mulry** at St. Anthony Hospital. Dr. Reibold was in general practice from 1946 until 1955 at Superior, Wisconsin, and he recently completed his residency training in Grand Rapids, Michigan.

Early in July, **Dr. Robert W. Dunlay** joined **Drs. A. W. Burgess** and **Thomas C. Graham** in practice in Iowa Falls. Dr. Dunlay is a graduate of the Creighton University school of medicine, and he interned and served as resident at St. Margaret's Hospital, Kansas City, Kansas. Dr. Graham has been in Iowa Falls only since last March.

Dr. Roy M. Hutchinson, a 1957 graduate of the College of Medicine at S.U.I., has returned to his home town to begin practice with **Dr. Paul C. Otto.** Dr. Hutchinson interned at St. Benedict's Hospital, in Ogden, Utah.

Dr. Frederick C. Blodi, of the S.U.I. Department of Ophthalmology, will be one of 43 American delegates at the International Congress of Ophthalmology, in Brussels, September 8-12.

Dr. Robert W. Anderson, until recently a resident at Blank Memorial Hospital, has joined **Drs. James E.** and **Ralph Dyson** in the practice of pediatrics in the Medical Arts Building, 3200 University Avenue, Des Moines. Dr. Anderson graduated from the S.U.I. College of Medicine in 1955 and interned at Iowa Methodist Hospital, Des Moines.

Dr. Leszek Ochota severed his connection with the Steele Memorial Clinic, in Belmond, on July 1 to move his allergy and arthritis practice to Nelsonville, Ohio. A native of Poland, Dr. Ochota received his final citizenship papers while in Belmond.

The heart-surgery team at Iowa Methodist and Blank Memorial Hospitals, Des Moines, headed by **Drs. William Myerly** and **John E. Gustafson,** performed four operations during June, one of which was the second for the patient, a six-year-old boy. All of those procedures were successful, and of the 61 operations which the group has attempted since the introduction of the extracorporeal bypass technic in February, 1956, about 75



for adults and children



Prompt 4 way check of diarrhea

- Curbs excessive peristalsis
- Adsorbs toxins and gases
- Soothes inflamed mucosa
- Provides intestinal antisepsis

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EFFECTIVE ANTIDIARRHEAL

FORMULA: *Each 15 cc. (tablespoon) contains:*

Sulfaguanidine	2 Gm.
Pectin	225 mg.
Kaolin	3 Gm.
Opium tincture	0.08 cc.
(equivalent to 2 cc. paregoric)	

DOSAGE: Adults: Initially 1 or 2 tablespoons from four to six times daily, or 1 or 2 teaspoons after each loose bowel movement; reduce dosage as diarrhea subsides.

Children: ½ teaspoon (=2.5 cc.) per 15 lb. of body weight every four hours day and night until stools are reduced to five daily, then every eight hours for three days.

SUPPLIED: *Bottles of 16 fl. oz.*
Exempt Narcotic. Available on Prescription Only.

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per cent have been successful. Of those performed on 27 patients requiring repair of simple defects, 100 per cent have succeeded.

The other physicians currently participating in the work are **Drs. Harold Klocksiem, Alfred N. Smith** and **Edward Duffie.** Two others—**Drs. Tom D. Throckmorton** and **Harold Margulies**—have worked with the group and are now associated with it in other aspects of the problem.

Dr. Walter W. Larson, a pediatrician who just finished his residency at Blank Memorial Hospital, in Des Moines, has joined the staff of the McFarland Clinic, in Ames. A graduate of the S.U.I. College of Medicine, he interned at St. Louis City Hospital, did obstetric and pediatrics work at Gary Air Force Base, San Marcos, Texas, studied aviation medicine at San Antonio, and served as flight surgeon with the Air Force in North Carolina.

An odd mixture of medicine and politics has made its appearance in Mills County. **Dr. Ward DeYoung,** of Glenwood, the coroner, decided that a man found dead following an automobile wreck there showed no external evidence of having died as a result of violence, and he called upon **Dr. Sidney Cohen,** of Council Bluffs, to perform an autopsy. Dr. Cohen came to the conclusion that the man had died as the result of a heart attack, but in the meantime the county sheriff declared that the wreck had killed him. Now, on the advice of the county attorney, the county supervisors are refusing Dr. Cohen his fee on the grounds that the coroner exceeded his authority in ordering it. The county is counting the man as a traffic fatality, but the State Department of Public Safety has refused to do so.

A life insurance policy, under which the decedent's heir might collect double the face amount if it is decided that death was from other than natural causes, appears to be a key issue in the altercation.

On Sunday, July 6, the twenty-fifth anniversary of his entry into medical practice, **Dr. W. E. Chase,** of Rippey, held open house for his friends and patients.

A new office building in Denison is being constructed for **Dr. Charles Fee,** two attorneys and a dentist. The three sections of the structure aren't to be interconnected.

Dr. and Mrs. E. P. Lovejoy returned early in

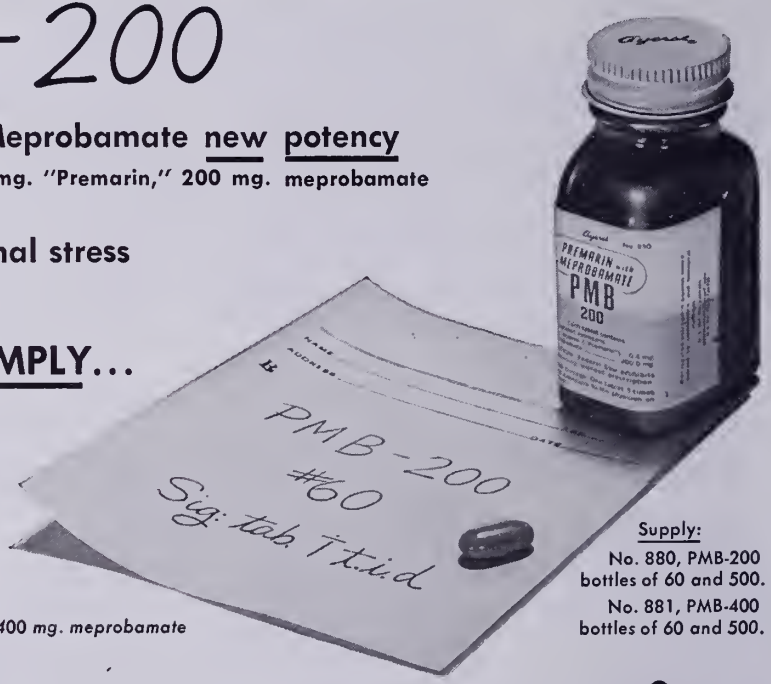
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Supply:
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CARTRAX*

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(PENTAERYTHRITOL TETRANITRATE) (BRAND OF HYDROXYZINE)

why PETN? *For cardiac effect:* PETN is ". . . the most effective drug currently available for prolonged prophylactic treatment of angina pectoris."[1] Prevents about 80% of anginal attacks.

why ATARAX? *For ataractic effect:* One of the most effective—and probably the safest—of tranquilizers, ATARAX frees the angina patient of his constant tension and anxiety. Ideal for the on-the-job patient. And ATARAX has a unique advantage in cardiac therapy: it is anti-arrhythmic and non-hypotensive.

why combine the two? *For greater therapeutic success:* In clinical trials, CARTRAX was demonstrably superior to previous therapy, including PETN alone. Specifically, 87% of angina patients did better. They were shown to suffer fewer attacks . . . require less nitroglycerin . . . have increased tolerance to physical effort . . . and be freed of cardiac fixation.

1. Russek, H. I.: Postgrad. Med. *19*:562 (June) 1956.

Dosage and Supplied: Begin with 1 to 2 yellow CARTRAX "10" tablets (10 mg. PETN plus 10 mg. ATARAX) 3 to 4 times daily. When indicated this may be increased by switching to pink CARTRAX "20" tablets (20 mg. PETN plus 10 mg. ATARAX.) For convenience, write "CARTRAX 10" or "CARTRAX 20." In bottles of 100.

CARTRAX should be taken 30 to 60 minutes *before* meals, on a continuous dosage schedule. Use PETN preparations with caution in glaucoma.

Roerig Rx

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*Trademark

July from a vacation trip to Texas. Dr. Lovejoy is a Des Moines anesthesiologist.

Dr. and Mrs. Paul Anneberg and their four children, of Carroll, drove 5,000 miles and hiked 140 miles during their tour of Europe in May and June. Dr. Anneberg attended a meeting of Rotary International in Lucerne.

They purchased a Volkswagen bus in Germany, and at the end of their tour they shipped it home for a total cost approximating its price in this country.

Dr. R. B. May, who was chief of professional services at the VA Hospital in Knoxville prior to his resignation on May 31, is now on the staff of a like institution in Fergus Falls, Minnesota. He had worked there before coming to Knoxville.

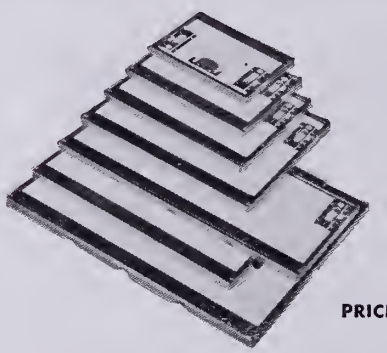
Dr. Abraham Gelperin, former director of the Des Moines-Polk County Health Department, in Des Moines, and since then successively assistant superintendent of a school for mental deficients in Dixon, Illinois, and senior physicians at the Chicago VA Hospital, has been made director of health and hospitals for Kansas City, Missouri, a post carrying a salary of $20,580.

Dr. J. W. Crossley, an ophthalmologist who recently completed a senior residency at the Gill Memorial Hospital, Roanoke, Virginia, has joined the staff of the Osage Medical Group. He took his M.D. at the S.U.I. College of Medicine, and after two years of military service, engaged in general practice for a year and then was associated for six years with **Dr. C. E. Chenoweth** (now of Anchorage, Alaska) and the late **Dr. H. D. Fallows**, in Mason City.

Dr. Leroy Berryhill, who recently completed his internship in Rockford, Illinois, took over the practice of **Dr. Byron L. Basinger**, at Goldfield, for a few weeks, while Dr. Basinger was on vacation.

A feature story in the town's newspaper, THE SENTINEL, on July 3, marked the twenty-fifth anniversary of **Dr. K. M. Chapler**'s starting practice in Dexter. Dr. Chapler, it said, has been a member of the board of education there for 17 years—15 of them as its president—and in addition has been

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active in church, commercial club and Boy Scout work. With **Dr. C. Robert Osborn**, who joined him 22 years ago, he operates a clinic-hospital with 18 beds and 38 employees.

Dr. J. D. Brower, who has been associated during the past year with **Dr. A. C. Wubbena** at Rock Rapids, entered Navy service about two weeks ago. As a lieutenant attached to the medical corps of the Marines, he will be stationed at Camp Pendleton, California. He closed his practice on June 30 and went on a two-week vacation trip in Minnesota before leaving for the West Coast.

His replacement, **Dr. R. J. Hassebrock**, arrived on July 1. He is an S.U.I. graduate who just completed his residency at Broadlawns-Polk County Hospital, Des Moines. His wife is a registered nurse.

Dr. L. N. Spohnheimer, who practiced at Donnellson for six years, interrupted by a two-year tour of duty with the Air Force, and who has been a resident at the VA Hospital in Iowa City for the past year, joined **Drs. W. Norman Doss** and **Thomas Viner** at Leon on July 1. The Doss-Viner clinic building is being enlarged to provide offices for Dr. Spohnheimer.

Dr. Richard Stuelke, a graduate of the S.U.I. College of Medicine who interned at Mercy Hospital, Cedar Rapids, has opened a general practice in West Branch. The town had been without a doctor since the departure of **Drs. William and Lois Eikleberry** two years ago. The newspaper report of his arrival said that he will teach classes in endocrinology and histology at the S.U.I. College of Medicine besides attending his patients.

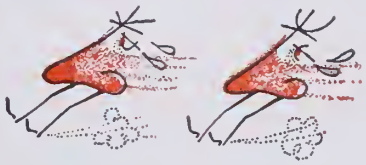
Orange City will shortly have a new doctor of medicine, though perhaps not a practicing one. She is **Dr. Marian Korteling,** a graduate of the University of Michigan College of Medicine and the wife of **Blaise Levai, Ph.D.,** who is joining the faculty of Northwestern College as a professor of English this month. Dr. Korteling has served as a medical missionary in India. The couple have three small daughters.

Dr. Irving Ringdahl set up practice early in July in a professional building that was recently completed in Roland. The structure was financed by popular subscription, and it is intended eventually to house a dentist as well as the physician. Dr. Ringdahl is a graduate of the University of Kansas College of Medicine, and he recently fin-





running noses . . .



and other hay fever symptoms

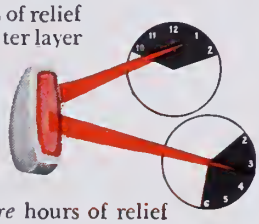
TRIAMINIC stops rhinorrhea, congestion and other distressing symptoms of summer allergies, including hay fever. Running nose, watery eyes and sneezing are best relieved by antihistamine *plus* decongestant action — systemically — with TRIAMINIC.

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ished his internship at Bethany Hospital, Kansas City, Kansas. Mrs. Ringdahl, a registered nurse, plans to assist her husband in his office.

Dr. Clarkson L. Kelly, Jr., has entered the practice of surgery at Charles City with **Drs. R. A. Fox** and **Emmet V. Ayers.** He received his pre-med training at St. Lawrence College, Canton, New York, and his medical degree at the University of Pennsylvania. He served for two years as chief of surgery at the U. S. Army Hospital in Bremerhaven, Germany, and his specialty training has included a five-year residency under **Dr. I. S. Ravdin** at the University of Pennsylvania Hospitals. His brother, **Dr. Thomas Kelly,** is a Des Moines pediatrician.

A new laboratory in the recently remodelled section of Children's Hospital now manufactures virtually all of the intravenous and other sterile fluids used at the S.U.I. Hospitals. **Dr. Elmer L. DeGowin,** now a professor of internal medicine, started the project 20 years ago, but heretofore the manufacture has been on no more than a limited scale. The installation also serves as a teaching laboratory for courses in hospital pharmacy, and it is manned by students in graduate pharmacy.

At the AMA meeting in San Francisco in June, **Mr. Donald L. Taylor,** executive director of the Iowa State Medical Society, was elected to the eight-man board of the Medical Society Executives Association. There are about 400 members.

Dr. Bertice A. Isenberg, of Lohrville, recently completed 50 years of medical practice, during 30 of which he has served that community. He is an Associate Member of the Iowa State Medical Society.

On July 10, **Governor Herschel Loveless** appointed four members of the Iowa Hospital Advisory Council. They are **Mr. Leon A. Bondi,** of St. Luke's Hospital, Davenport, representing the Iowa Hospital Association; **Dr. Wendell L. Downing,** of Le Mars, representing the Iowa State Medical Society; **Mrs. Evelyn Eng,** of Des Moines, representing the Iowa Nurses Association; and **Mrs. Marjory Field,** of Waterloo, as public representative. All appointments were made for four-year terms.

Dr. Stephen Kruse, an S.U.I. medical graduate who completed his internship at Broadlawns-Polk

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Harold Swanberg, M.D., Secretary, W.C.U. Bldg., Quincy, Ill.

County Hospital, in Des Moines, on June 30, has joined **Dr. Wayne Severson** in practice at Slater.

The AMES TRIBUNE announced on June 24 that the members of the medical staff at Mary Greeley Hospital had unanimously accepted $75,000 as their quota in the $200,000 fund-raising drive to help finance the remodelling of the institution. A municipal bond issue is expected to provide $600,000; about $125,000 is available from a depreciation fund; and if all of those moneys are forthcoming locally, the federal government will provide nearly $500,000 of Hill-Burton Act appropriations.

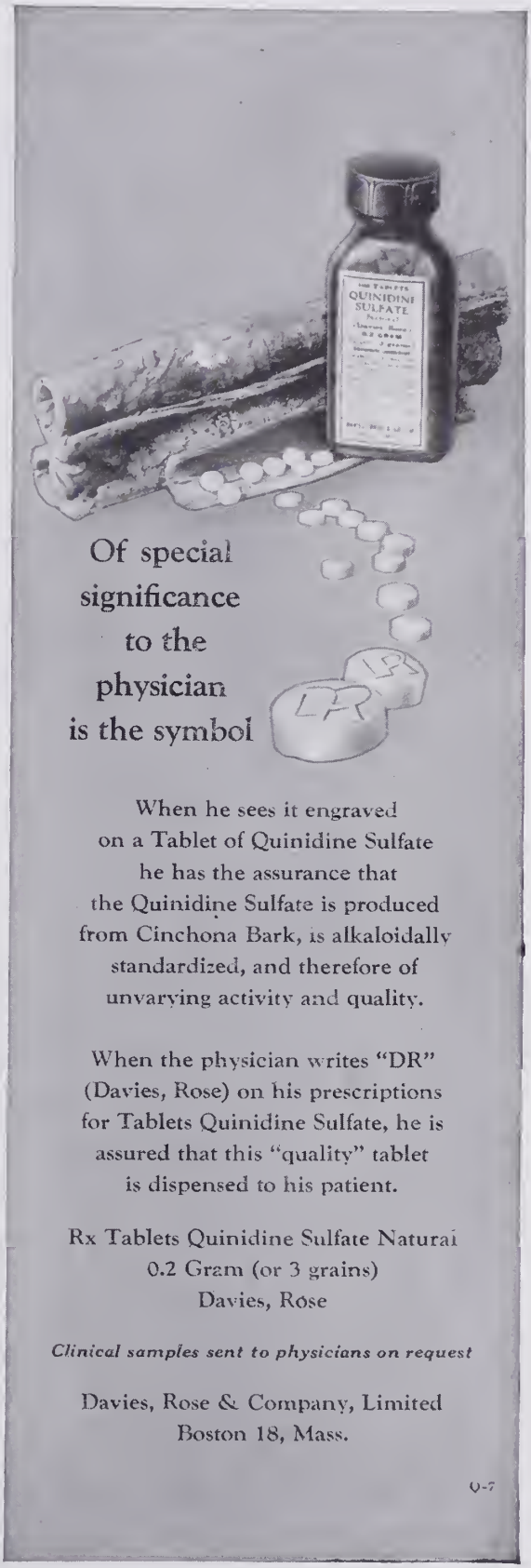
The Des Moines-Polk County Health Department is providing field work in public health for a week each, this summer, to a succession of pairs of senior students from the Creighton University school of medicine. **Dr. James F. Spears**, the director of the Department, says that they are accompanying sanitarians and nurses on their rounds, are visiting dairy farms and pasteurization plants, and are observing venereal disease investigations, among other things. The Creighton school has a similar program in Omaha.

At the sixty-second annual convention of the United Evangelical Lutheran Church, held at Dana College in Blair, Nebraska, on June 24, **Dr. Einer Juel**, of Atlantic, was chosen as one of the organization's trustees.

The appointment of **Dr. W. K. Hamilton** as professor and head of the Division of Anesthesiology at the S.U.I. College of Medicine was approved by the State Board of Regents on June 20 to take effect on July 1. He succeeds **Dr. Stuart C. Cullen**, who on the same day became head of the Division of Anesthesiology at the University of California College of Medicine, in San Francisco.

Dr. Hamilton, a native of Panora, graduated from the medical school in Iowa City in 1946 and did his residency work there. His new post is a promotion for him from the rank of associate professor. For several years he has been engaged in research on cardiopulmonary physiology.

Dr. George H. Keeney, a Life Member of the Iowa State Medical Society who marked the fiftieth anniversary of his entry into medical practice on June 19, has practiced all but one year in Mallard. Besides caring for the health of his fellow townspeople, he has been a member of the school board there for 39 years—36 of them as its president—and has engaged in various other community activities.



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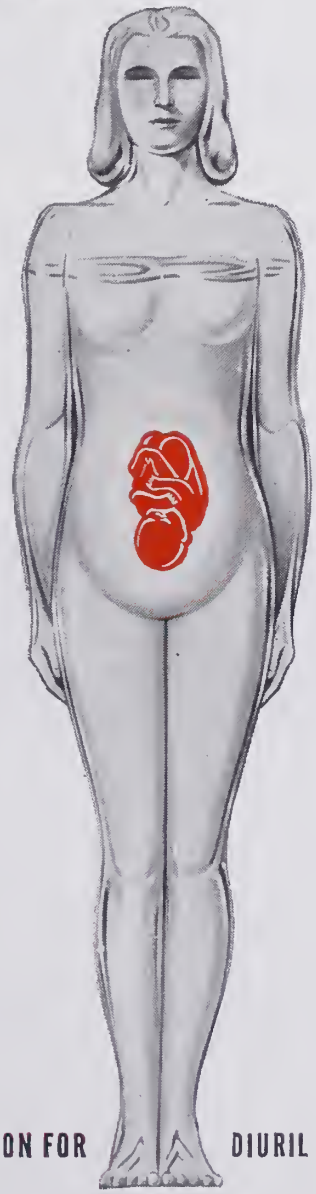
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During the night of June 25-26, the offices of **Drs. F. Harold Entz** and **Rolf F. Kruse**, in Waterloo, were burglarized, and about $30 was taken.

Dr. H. E. Farnsworth, a Storm Lake pediatrician, has been reappointed to a five-year term on the State Board of Medical Examiners. He has now been a member of that body for eight years.

THE JOURNAL erred in June when it reported that although **Drs. E. M. Eneboe** and **D. K. Haggar** dissolved their partnership on May 1, both were continuing practice in Hawarden. Dr. Eneboe is still at work there, but Dr. Haggar is not and has made no announcement of his plans.

Dr. J. C. Donahue, of Centerville, who recently announced his retirement, has sold the Banford Clinic to **Dr. E. F. Ritter. Dr. E. E. Banford**, who established it, died in 1937. The building has five office rooms on the first floor and a dentist's office upstairs.

Lake City residents are being asked for contributions totaling $250,000 for the construction of a new hospital to cost, including Hill-Burton money, approximately $375,000, and to provide 35-40 beds. The existing hospitals in the town (McCrary-Rost and McVay Memorial) provide a total of 27 beds. As of June 24, $71,710 had been collected or pledged.

Medical Associates are planning to construct a new office building for themselves at New Hampton.

Dr. Charles O. Johnson, a 1957 graduate of the University of Utah College of Medicine who recently finished his internship at Mercy Hospital, Des Moines, has opened a general practice at 5731 Urbandale Avenue, there. He also is a new member of the Polk County Commitment Board.

At that address, Dr. Johnson succeeds **Dr. Robert Brindley**, who is returning to S.U.I. to start a residency in psychiatry. Dr. Brindley's decision appears to have been an abrupt one, for he had been nominated in the June 1 primary election as the Democratic candidate for coroner and had issued an announcement that he intended practicing with Dr. Johnson. He will be at Iowa City for three years, and will then spend a minimum of two years on the staff of one of the Iowa mental health institutes.

Dr. Joseph Standefer, a pediatrician, was subsequently named by a county convention to replace Dr. Brindley as Democratic nominee for

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Because 65-PLUS is based on the principle of group insurance—the periods in which it is offered must be limited. All applications must be received no later than September 20. Any inquiries you wish to make on behalf of your elderly patients or friends will be welcomed.



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coroner. **Dr. Rudolph Duewall** is the Republican candidate.

Dr. Oliver O. Wiswell, an obstetrician and gynecologist has opened an office in the Des Moines Building, in Des Moines, where he will share a suite of offices with **Drs. Walter D. Abbott** and **John T. Bakody,** neurosurgeons, and **Drs. Herbert A. Sohm** and **Matthew P. Lawler, Jr.,** obstetricians and gynecologists. Dr. Wiswell holds a medical degree from St. Louis University (1952) and served his residency there. He practiced at McAllen, Texas, in 1956-1957, and at Cocoa, Florida, in 1957-1958.

Drs. A. B. Phillips, J. T. McMillan and **T. A. Burcham, Jr.,** Des Moines radiologists, have a new associate, **Dr. Louis T. Maher,** a 1948 graduate of the Creighton University Medical School. He took his specialty training at the S.U.I. College of Medicine, and since then has practiced in Omaha for two years and in South Sioux City, Nebraska, for four years.

Dr. David Baridon, Jr., has joined **Dr. Richard F. Birge** in the practice of pathology in Des Moines. A graduate of the Northwestern University Medical School, he served his internship at Iowa Methodist Hospital, in Des Moines, and since then has completed a four-year fellowship at the Mayo Clinic. He is a diplomate of the American Board of Pathology in both pathologic anatomy and clinical pathology.

On the program of the sixth annual Institute of Nursing Home Management, at Drake University June 8-10, the speakers included **Drs. Daniel A. Glomset, Herbert C. Merillat, George E. Mountain, W. C. Shinkle** and **E. G. Zimmerer,** all of Des Moines.

Dr. Walter D. Abbott, president of the Iowa State Medical Society, will be one of the speakers at a workshop meeting of the Iowa Association of Medical Assistants, at Methodist Camp on Clear Lake, August 22-24.

Dr. Richard Paul, of Des Moines, has been appointed part-time physician for the local plant of the Solar Aircraft Company.

Dr. Howard Smead, of Des Moines, who has been medical director for that company, resigned recently to become plant physician at the newly-

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Among the 280 certifications announced on May 16 by the American Board of Obstetrics and Gynecology, four were granted to Iowa doctors: **Robert B. Allender**, of Des Moines; **William B. Goddard**, of S.U.I.; **Richard M. Moore**, of Des Moines; and **Raymond O. Swann**, of S.U.I. Dr. Swann has since left S.U.I. to join the faculty of the University of Wisconsin, at Madison.

Forty-seven people attended a testimonial dinner at the Fort Madison Country Club on June 17 in honor of **Dr. R. S. Reimers.** During most of his 50 years' practice in Fort Madison, Dr. Reimers has engaged in EENT work. Though he closed his office in 1953, he still serves patients at the State Penitentiary daily.

Dr. L. A. Coffin, of Farmington, represented the Iowa State Medical Society in presenting him a 50-year certificate, and a gift was presented to him by the Lee County Medical Society.

Dr. Joseph P. Stoikovic, an internist who has been a member of the staff of the Creston Clinic for about a year since finishing his residency in Iowa City, moved to Burlington on July 1. There, he is in solo practice.

Dr. C. E. Fenlon, a generalist with one previous year of practice, will open an office at 617 Brick & Tile Building, Mason City, on August 18. There, he will work alone.

The Sisters of the Humility of Mary, who operate St. Joseph Hospital at Ottumwa, will shortly start building a new four-story wing at that institution, at a cost of about $1,500,000. A new lobby, snack bar, general offices, physical therapy rooms, x-ray and pathology laboratories, recovery rooms and between 25 and 40 patient rooms will be contained in the addition. St. Joseph now has a capacity of 125 beds.

Dr. Paul W. Scott, an internist, has joined **Drs. Lloyd J. Gugle** and **Kenneth R. Kingsbury** in practice at Ottumwa. Dr. Scott is a graduate of the Vanderbilt University medical school who interned and just completed a residency at the S.U.I. Hospitals.

Dr. Lora D. James, of Fairfield, a Life Member of the Iowa State Medical Society, was admitted to Jefferson County Hospital as a patient on July 10 after being taken ill while attending patients there. The hospitalization was not expected to be lengthy.

Dr. Arthur Austin, a radiologist who has been

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practicing during the past four years in Billings, Montana, will return to Ottumwa in mid-August to join **Dr. John Stewart.** He will take the place of **Dr. Charles Graham,** who recently moved to Colby, Kansas. Dr. Austin was in Ottumwa from about 1950 until 1954.

Dr. Robert P. Lichtenberg is now associated with **Dr. George H. Ashline** in Keokuk. He is a surgeon who has practiced previously in Grand Island, Nebraska.

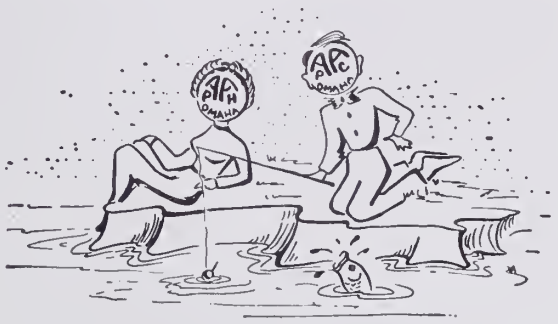
Dr. E. J. DeLashmutt has opened a general practice in Fort Madison. He came there from Kansas City, Missouri.

The following Cedar Rapids physicians have leased space in a new doctors' building which is being erected at the corner of First Avenue and Nineteenth Street S.E.: **Drs. Robert W. Veley** and **John P. Barthel; Drs. Robert W. Netolicky** and **Campbell F. Watts; Dr. Philip I. Crew; Dr. E. L. Lindley** and **Dr. John R. Huey.** The one-story structure will be ready for occupancy on January 1, and will contain a lunchroom and a pharmacy in addition to the doctors' offices.

Dr. Howard Ruliffson, who has practiced with **Dr. James Cornish** at Storm Lake since 1952, has announced his intention of moving to Gilroy, California, a town about 100 miles south of San Francisco.

A new office building is being erected for **Dr. A. L. McGilvra** in Sioux Center. He expects to move into it early next year.

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THE ARMY WILL CONTINUE FLU VACCINATIONS

A new polyvalent influenza vaccine giving protection against Asian, swine A, A′ and B strains of the disease will be administered during October to all U.S. Army personnel on active duty. In addition, vaccination will be available on a voluntary basis to all dependents of military personnel and to all civilian employees of the military service and their dependents in overseas areas.

The new flu vaccine will be given as a single 1.0 cc subcutaneous injection to servicemen and to all dependents 13 years of age or over. Children aged six through 12 years may be given two subcutaneous injections of 0.5 cc. each separated by an interval of one week. The military does not give the new vaccine to pre-school children as a routine procedure.

RING RASHES

Skin rashes from rings result from a reaction between metal and salt on the skin, rather than from too much acid in the system, according to Dr. L. Edward Gaul, of Evansville, Indiana.* Studies, he says, have shown that salt in perspiration or applied directly to the hand and the ring—not metals by themselves—can be blamed for the reaction.

Relatively large amounts of salt are distilled on the palmar surfaces of persons who have eaten such foods as salted nuts or popcorn, he noted.

* Gaul, L. E.: Ring dermatosis. ARCH. DERMATOL., 77:526-531, (May) 1958.

DEATHS

Dr. Clifford William Young, 72, a physician at Onawa for 47 years, died in a Sioux City hospital on June 29, following a heart attack.

Dr. Nathan B. Williams, 57, a physician and surgeon who had served Belle Plaine for 31 years, died at St. Luke's Hospital, Cedar Rapids, on June 24, following a heart attack. He had been in the hospital for nearly a week receiving treatment for a kidney infection.

Dr. Bert John Dillon, 78, who had practiced for more than 50 years at Waukon, died at his home there on July 5.

Dr. William Alexander Graham, who practiced at Avery from about 1898 until 1910, died in Powell, Wyoming, on June 26.

Dr. Ira Albertus Marble, 79, who practiced at Sheffield until he retired about seven years ago, died of a heart attack in his automobile near Mason City on July 4.

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 1:15 p.m.
"SUPERSTITION AND SCIENCE"

August 7 ..... Wounds
August 14 ..... Digitalis
August 21 ..... Fertility
August 28 ..... Scurvy

WSUI—Iowa City, Iowa
Monday at 2:30 p.m.
"HELP YOURSELF TO HEALTH"

August 4 ..... A Rural Community Receives a New Doctor
August 11 .... A New Doctor in the Community
August 18 .... Success of Health Council Survey
August 25 ..... How to Build a Hospital

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

August 6 .... Good Grooming and Good Health
August 13 ..... Acne
August 20 ..... Weight Problems
August 27 ..... Rheumatic Fever

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

August 3 ..... Boy-Girl Relations, Part I
August 10 ..... Boy-Girl Relations, Part II
August 17 .... Good Grooming and Good Health
August 24 ..... Acne
August 31 ..... Weight Problems

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

August 3 ..... Rehabilitation
August 10 ..... Plastic Surgery
August 17 ..... Psychiatry
August 24 ..... Nursing
August 31 ..... Later Years

The foregoing schedules are subject to change at the discretion of the station managers.

Coming Meetings

(Continued from page 480)

Sept. 26-27	**American Medical Writers' Association.** Hotel Morrison, Chicago
Sept. 27	**American College of Physicians, Mid-West Regional Meeting.** Milwaukee County Hospital, Milwaukee.
Sept. 27-Oct. 3	**Fifty-ninth Annual Meeting, American Roentgen Ray Society.** Shoreham Hotel, Washington, D. C.
Sept. 28-Oct. 2	**International Congress of Psychotherapy.** Barcelona, Spain
Sept. 29	**International College of Surgeons, Tennessee Surgical Section Meeting.** Chattanooga
Sept. 29-Oct. 1	**Electrocardiography (U. of Nebraska College of Medicine and Nebraska Heart Association).** U. of Nebraska College of Medicine, Omaha

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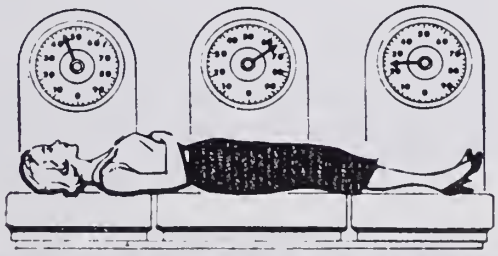
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Sept. 29-Oct. 3 **Malignant Neoplasms of the Female Genital Tract.** N.Y.U.—Bellevue Medical Center, N.Y.C.

Sept. 29-Oct. 3 **American Board Review Course (Internal Medicine), for Part I Candidates Only.** Cook County Graduate School of Medicine, Chicago

Sept. 29-Oct. 4 **American Fracture Association.** Skirvin Hotel, Oklahoma City

Sept. 29-Oct. 5 **Annual Otolaryngologic Assembly.** U. of Illinois College of Medicine, Chicago

Sept. 29-Oct. 10 **Clinical Use of Radioisotopes.** Cook County Graduate School of Medicine, Chicago

NFME WILL SUBSIDIZE BASIC MEDICAL RESEARCH

To help support the search for new medical knowledge and to increase the numbers of trained researchers, the National Fund for Medical Education has established a medical research program through which contributions from United Funds, community chests, voluntary health agencies and other organizations will be channelled into basic research. The National Fund for Medical Education is the instrumentality through which business and industry makes contributions for the support of the nation's medical schools. It recently turned over $3,178,825 to those institutions, bringing to $15,843,766 the total of grants awarded since its inception in 1949. A similar organization, the American Medical Education Fund, solicits moneys for the same purposes from physicians and their wives.

Mr. S. Sloan Colt, until recently the chairman of the board of Bankers Trust Company, New York City, is president of the National Fund for Medical Education. In announcing the establishment of the medical research program, he said, "By supplementing categorical research into the specific diseases, this research program of the Fund will help to broaden overall research activities, and will be an important stimulus to the advancement of the medical sciences.

"The greatest need in research today," Mr. Colt continued, "is for the support of basic research and the training of research personnel. The bulk of research money available at present is for project research. Creative research—the exploratory probing and groping in the unknown—too often must be financed out of meager general funds."

NFME grants, at present principally supported by corporation contributions, are unrestricted, but are used primarily for support of teaching budgets of the medical schools.

RESPIRATORY PROPHYLAXIS

Immunization with type-3 adenovirus vaccine was suggested by an editorial in the May issue

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of the QUARTERLY REVIEW OF PEDIATRICS as a means of protecting children who are planning to attend a boarding school, camp or similar institution. It pointed out that adenovirus type 3 seems to be most prevalent in civilian populations, giving frequent rise to epidemics of pharyngitis with or without conjunctivitis.

Epidemiologic studies have revealed that the adenoviruses account for only 0.5 to 3 per cent of the respiratory illnesses in civilian populations during any one season of respiratory-tract infections. Investigators therefore estimate that a completely effective adenovirus vaccine, if widely given to children, would reduce the average number of common respiratory illnesses during the first 10 years of life by only 6 per cent. Adenovirus immunization is thus not generally recommended for civilian populations.

In military establishments, however, as many as 20 per cent of fresh recruits often become incapacitated by respiratory illnesses caused by adenoviruses within a single season. Studies at three military training centers showed that the vaccination program resulted in about a 90 per cent reduction in adenovirus-caused respiratory illnesses among recruits in the same environments.

In the light of these findings, and since similar conditions can be supposed to exist in schools and camps where children live together, the editorial recommends inoculation for such youngsters.

MISSISSIPPI VALLEY SOCIETY AND MEDICAL WRITERS' ASSN.

The annual meeting of the Mississippi Valley Medical Society will be held at the Morrison Hotel, in Chicago, September 24-26, and the annual meeting of the American Medical Writers' Association will be conducted at the same place on September 26-27. Complete programs of either or both meetings can be secured from Harold Swanberg, M.D., W.C.U. Building, Quincy, Illinois.

The scientific papers at the sessions of the Mississippi Valley Medical Society will be given by Dr. Gunnar Gundersen, president of the AMA; Dr. Alton Ochsner, of Tulane; Dr. Robert C. Hickey, of S.U.I.; Dr. Mark H. Lepper, of the University of Illinois; and others. Topics for panel discussions will include "Diagnosis and Prognosis in Jaundice and Liver Disease"; "Fractures in Children"; "Pulmonary Diseases"; "Diarrhea in Infancy"; "Hypertension"; and "Menopause, Menorrhagia and Amenorrhea."

At the sessions of the American Medical Writers' Association, there will be 16 speakers, among them Dr. John Z. Bowers, editor of the JOURNAL OF MEDICAL EDUCATION; Dr. Ochsner; Dr. Austin Smith, editor of J.A.M.A.; and Dr. Karl A. Menninger, chief of staff of the Menninger Foundation. There will be a workshop on medical writing.

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INTENSIVE POSTGRADUATE COURSES

Starting Dates—Fall, 1958

SURGERY—Surgical Technic, Two Weeks, September 15, September 29
Surgery of Colon and Rectum, One Week, September 22, October 27
Basic Principles in General Surgery, Two Weeks, October 13
Gallbladder Surgery, Three Days, November 3
Surgery of Hernia, Three Days, November 6
General Surgery, Two Weeks, November 10; One Week, October 27
Fractures & Traumatic Surgery, Two Weeks, October 20
American Board Review Course, Two Weeks, November 10
Blood Vessel Surgery, One Week, October 20
GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, September 8
Vaginal Approach to Pelvic Surgery, One Week, October 6
General & Surgical Obstetrics, Two Weeks, September 22
MEDICINE—General Review Course, Two Weeks, October 20
Electrocardiography, Two-Week Basic Course, October 6
Gastroscopy & Gastroenterology, Two Weeks, November 3
American Board Review Course, One Week, September 29 (For Part I Candidates Only)
DERMATOLOGY—Clinical & Didactic Course, Two Weeks, November 3
UROLOGY—Two-Week Intensive Course, October 13
Ten-Day Practical Course in Cystoscopy by Appointment
RADIOLOGY—Diagnostic X-Ray, Two Weeks, September 22
Clinical Uses of Radioisotopes, Two Weeks, September 29

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LIST YOUR WANTS

(Additional Want Ads on page lvi)

No charge is made for the ads of members and wives of deceased members of the Iowa State Medical Society; for others the cost is $1.00 per issue. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA STATE MEDICAL SOCIETY, 529-36th St., Des Moines 12, Iowa.

WANTED: General practitioner to take over lucrative practice in good northeastern Iowa community. New office space available, with no opposition. Write or phone Sunset 9-2176 or Sunset 9-2089, Dike, Iowa.

WANTED: An opportunity to increase your income and pleasure from farm ownership through professional farm management. Write or call Sayre Agricultural Service, Indianola, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

GENERAL PRACTICE, office space, medical equipment and supplies available in southern Minnesota town of 8,000. Address No. 1,103, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

PEDIATRICS resident would like to acquire old copies of PEDIATRIC CLINICS OF NORTH AMERICA. Write or call R. K. Lechelt, M.D., Raymond Blank Memorial Hospital for Children, Des Moines 14.

FOR SALE: House, office and equipment in small north-central Iowa town with large tributary area. The office is fully equipped for a general practice; the house is ranch style and has two bedrooms. Address No. 2,001, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

FOR SALE: Portable G-E x-ray. Perfect condition. Brand new tube. Small down payments and monthly installments. Address No. 2,000, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER can find splendid opportunity in northwest Iowa town of 10,000, where there are now only three GP's in active practice. Three manufacturing plants, a wholesale grocery and railroad shops insure economic stability of the community. Fine hospital, recreational facilities of all sorts. Office and equipment of recently deceased physician for sale or lease, and four-room furnished apartment for rent while the doctor finds preferable housing. Address No. 2,002, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER needed by a town of 1,500 people close to Des Moines. Doctor with long-established practice died recently. Office for rent, and medical records and experienced nurse available. Hospital 10 miles away. The town now has no doctor of medicine. Address No. 1,096, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

LOCUM TENENS: Will do locum tenens in Waterloo-Cedar Falls by the week or month. Local references. Address No. 1,095, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

LOCUM TENENS for August and September wanted by doctor who is to enter Air Force on September 28. Address: No. 1,097, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

DOCTOR OF MEDICINE wanted by Eldon, Iowa, a railroad terminal town of 1,600. The man who locates there can arrange to serve the C&RI Railway and be county health director as well as carry on a private general practice. Excellent territory; 5-room office available. Address: Robert Weidenbach, Eldon Community Club, Eldon, Iowa.

WANTED: General practitioner to join two-man group. He must have completed military requirements. Practice is largely obstetrics and pediatrics, in community of 100,000 people. Starting salary $12,000; partnership starts second year. Present gross is about $150,000. Applicants should act quickly, for the position is open now. Address: No. 1,104, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER needed by town of 4,000 and surrounding community containing small towns now without a doctor. Close to Cedar Rapids and Iowa City, which have excellent hospitals. Doctor with long-established practice died recently. Office fully equipped for general practice is for sale or rent. Medical records and experienced, registered medical secretary available. Write to Paul Groszkruger, Citizens State Bank, Belle Plaine, Iowa. Business phone: 51.

FOR SALE: Heidbrink Midget Kinetometer, half-price. Stand model on casters has six yokes, six needle valves, three new 1000-series flowmeters for oxygen, nitrous oxide and cyclopropane, with improved 9B Absorber, weighted pop-off valve, No. 8 ether vaporizer, No. 100 inhaler, inhaler strap, two masks, conductive rubber. Also B.D. blood pressure manometer, bracket, cuff, tubing, anesthetist's stethoscope. Cash price $375. Address: C. V. Waggoner, M.D., 216 Main Avenue, Clinton, Iowa.

GENERAL PRACTITIONER needed to replace physician who is retiring after many years of service to town of 400 and surrounding community 35 miles from Des Moines. Hospital 10 miles away. Present doctor will sell equipment, office building and home on easy terms, and assist new man in getting established. Address No. 1,107, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

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LIST YOUR WANTS

(Additional Want Ads on page lv)

GENERAL PRACTICE in Ames for sale to right party. Completely equipped, air conditioned office, shared with another M.D., will be available about September 1. This fast-growing town has excellent school and hospital facilities, and is an excellent place to rear a family. Address No. 1,105, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Physician for Admitting Office in 386-bed general medical and surgical hospital. Forty-hour week; 30 days' annual vacation; sick leave; excellent retirement program with life insurance. Good school system. Salary dependent upon experience—minimum $9,000. Apply to Manager, Veterans Administration Hospital, Des Moines 9, Iowa.

FOR SALE: General practice and all office equipment and furniture. County seat town; good schools and churches; one other M.D. Leaving July 1 for residency. Address No. 2003, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

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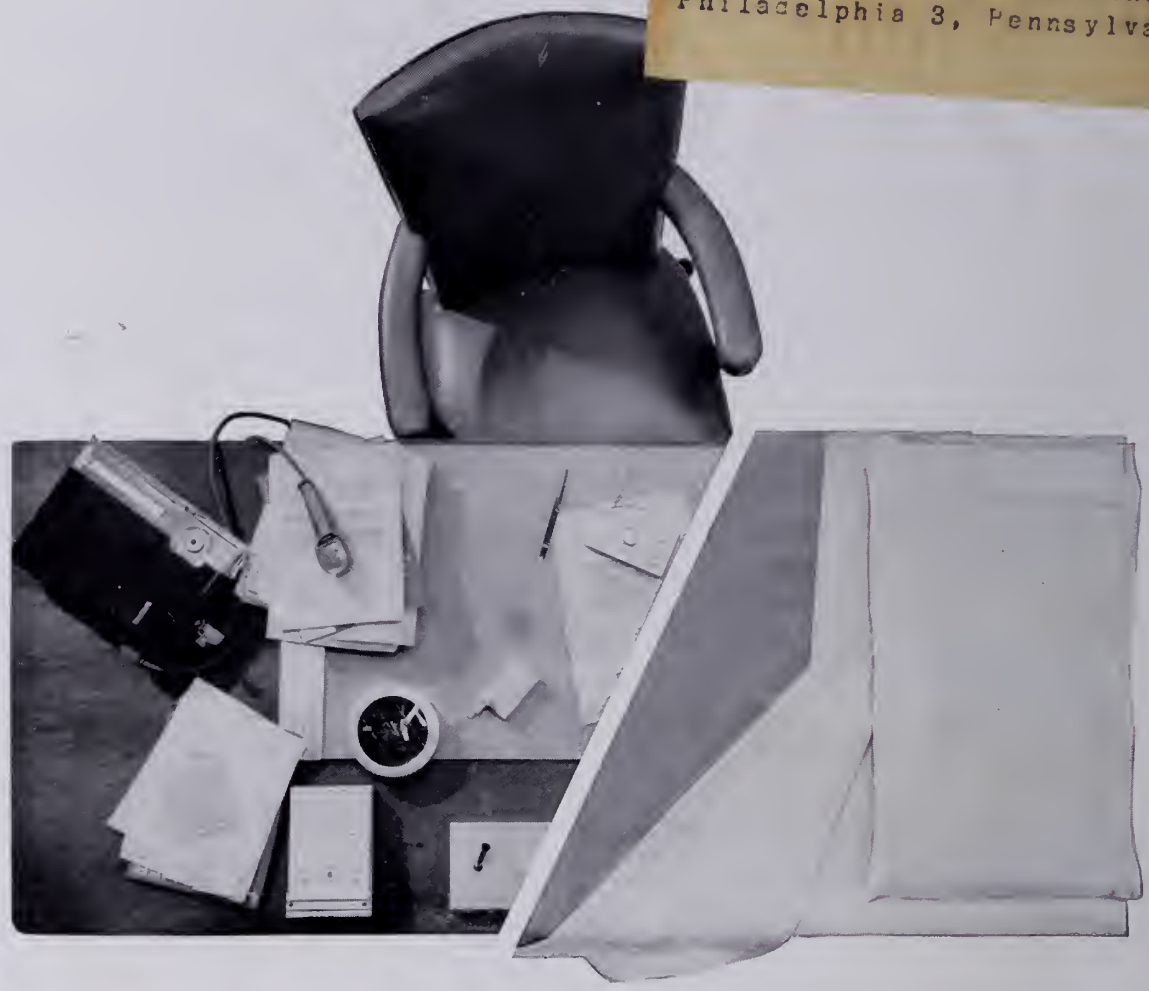
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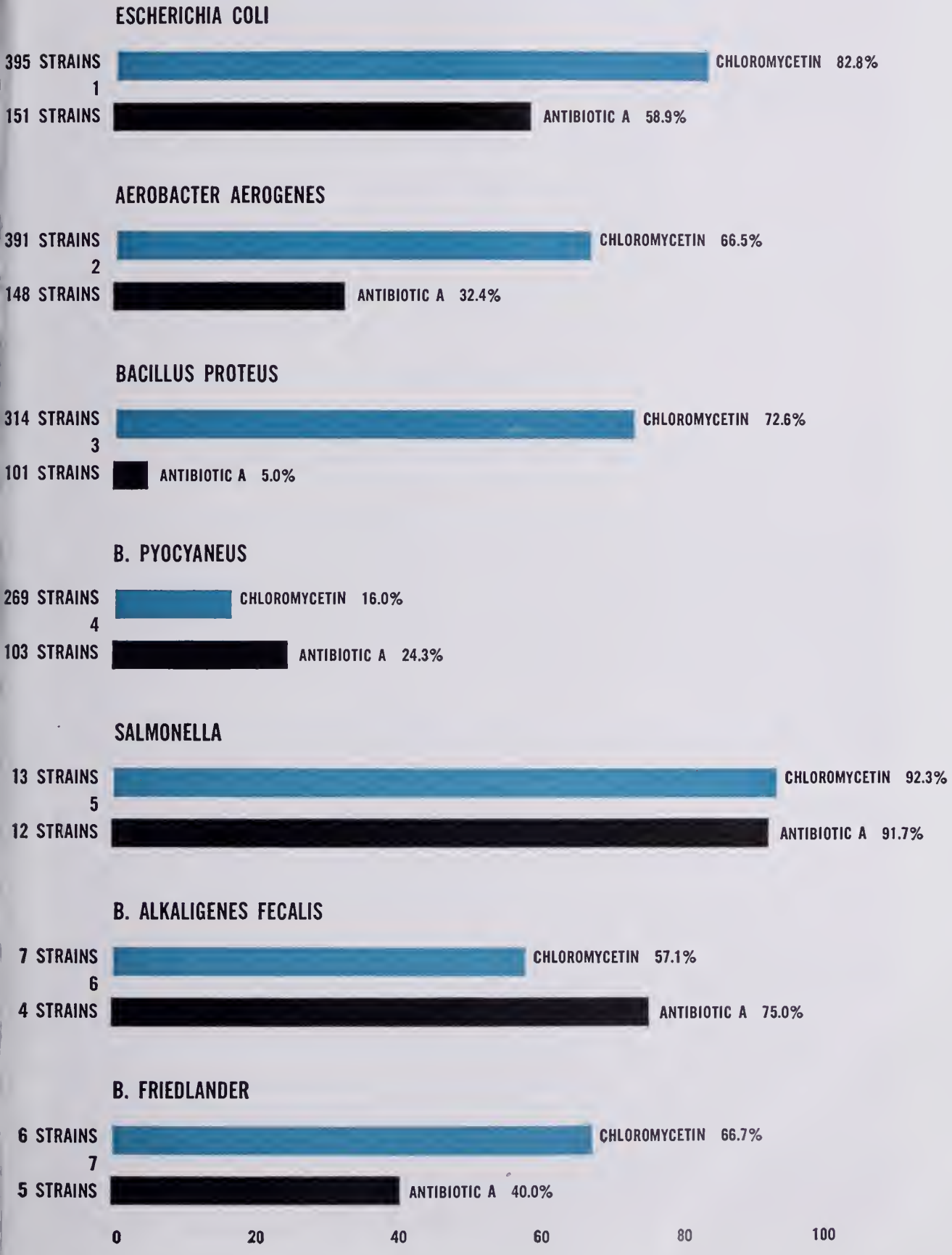
REFERENCES: (1) Schneierson, S. S.: *J. Mt. Sinai Hosp.* 25:52, 1958. (2) Waisbren, B. A.: *Wisconsin M. J.* 57:89, 1958. (3) Ritts, R. E., Jr.; Mao, F. H., & Favour, C. B.,in Welch, H., & Marti-Ibanez, F.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 774. (4) Rhoads, P. S.: *Postgrad. Med.* 21:563, 1957. (5) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M.A.J.* 77:844, 1957. (6) Hasenclever, H. F.: *J. Iowa M. Soc.* 47:136, 1957. (7) Holloway, W. J., & Scott, E. G.: *Delaware M. J.* 29:159, 1957. (8) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 99:744, 1957. (9) Derham, R. J., & Rogerson, M. M.: *J. Dis. Child.* 93:113, 1957. (10) Murphy, J. J., & Rattner, W. H.: *J.A.M.A.* 166:616, 1958. (11) Rabe, E. F.: *Pennsylvania M. J.* 61:209, 1958. (12) Rosenthal, I. M.: *GP* 17:77 (March) 1958.

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*Adapted from Schneierson.[1]

Journal of the IOWA STATE MEDICAL SOCIETY

Vol. XLVIII SEPTEMBER, 1958 No. 9

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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

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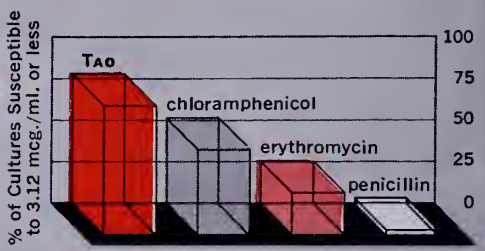
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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.



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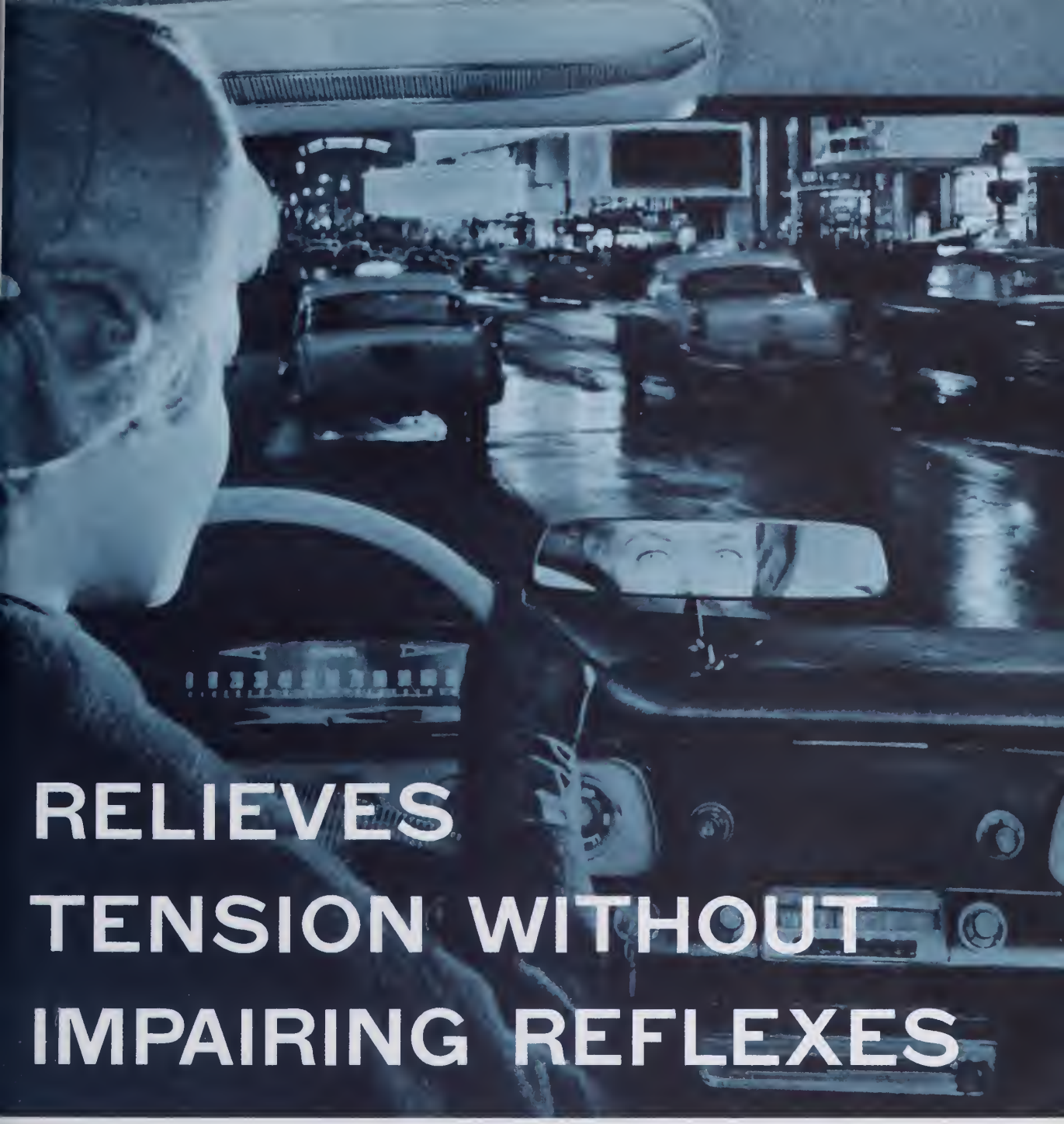
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*Marquis, D. G., Kelly, E. L., Miller, J. G., Gerard, R. W. and Rapoport, A.: Ann. New York Acad. Sc. 67: 701, May 9, 1957.

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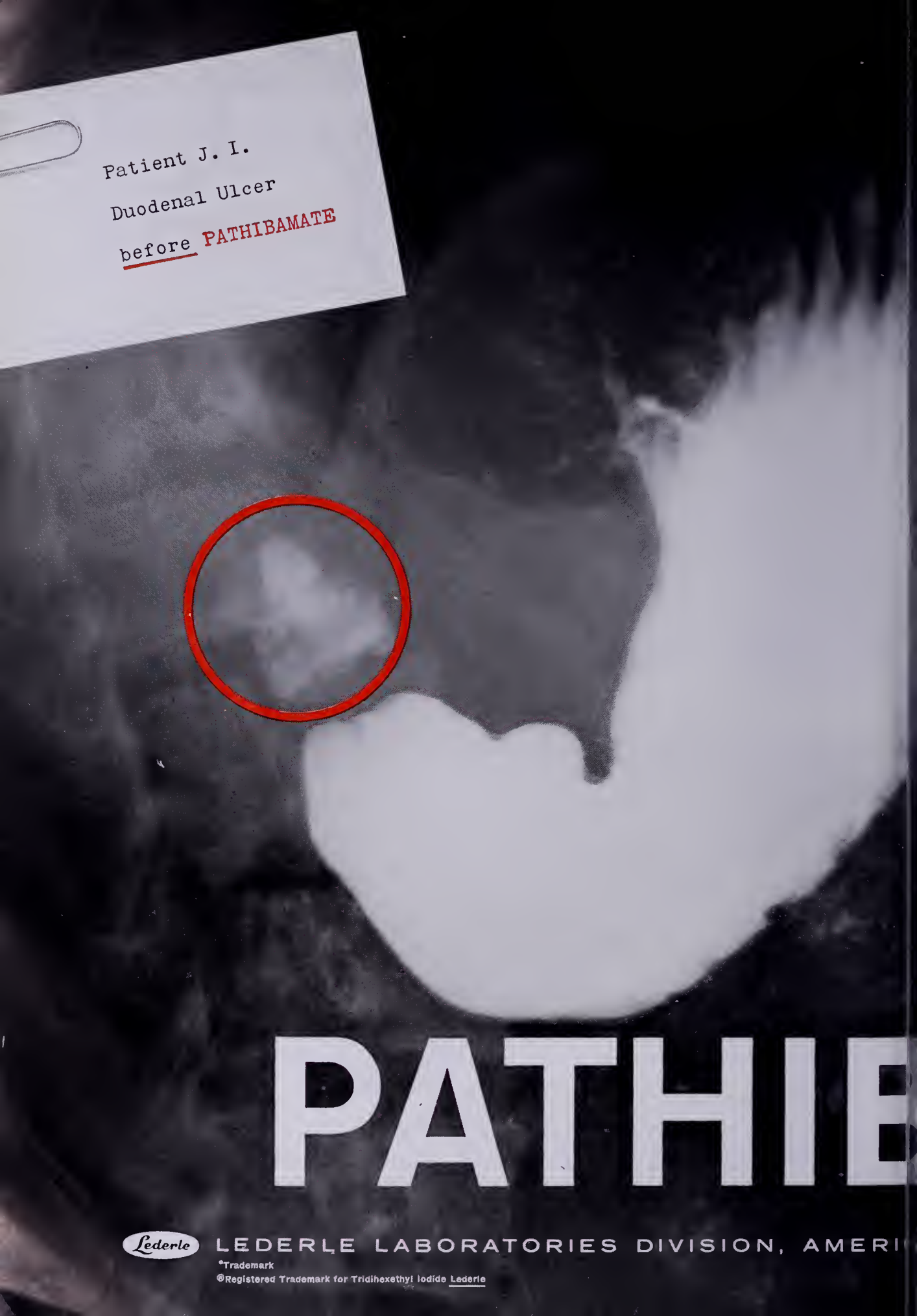
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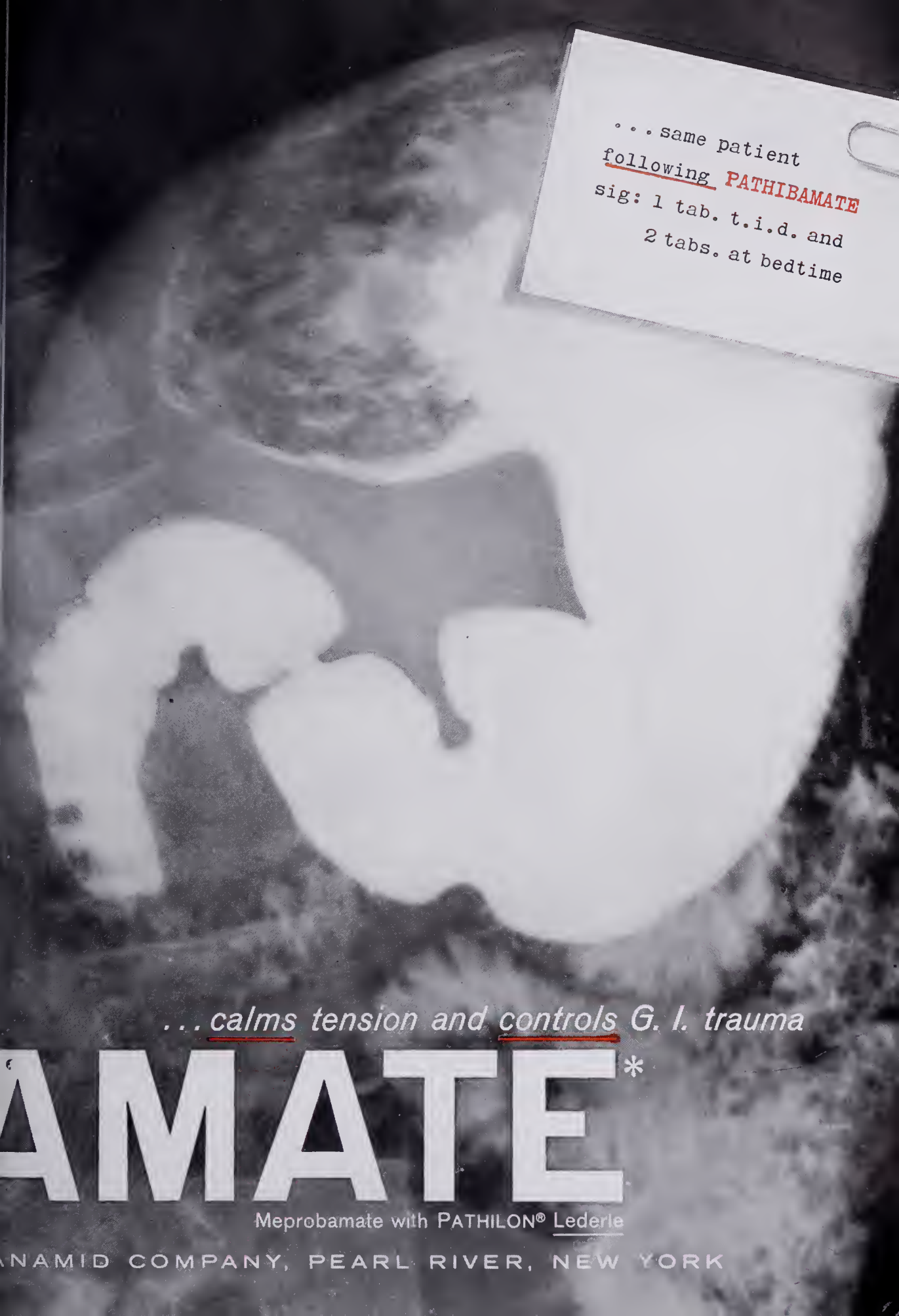
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the cough

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the fever



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of infant feeding

Standard one-formula mixture

Normal infant nutrition requires approximately 50 calories per pound of weight. Caloric distribution should be about 15% from protein, 50% from carbohydrates and 35% from fat as formulated for the mixtures in the tables below.

For young infants, a favorable hospital formula consists of a milk and Karo Syrup mixture, isocaloric with human milk, e.g. 20 calories per ounce.

WHOLE MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Whole milk	24	480	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

EVAPORATED MILK FORMULA

FORMULA	OZ.	TOTAL CALORIES	CARB. CAL.	FAT CAL.	PROT. CAL.
Evaporated milk	11	484	5%	36%	14%
Water	22	—	—	—	—
Karo Syrup	1½	180	45%	—	—

An infant will usually take 2 to 3 ounces more than his *age in months* at 3 to 4 hour intervals to satisfy his appetite and nutritional needs. It is psychologically unwise to force prescribed amounts. Normally, the gain in weight of 6 to 8 ounces a week during the earlier months gradually diminishes to 3 to 4 ounces a week by the end of the first year. The standard one-formula mixture not only provides adequate nutrition when vitamin supplements are added; it also provides educational opportunities to prevent feeding problems.

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Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

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Low Cost: Karo Syrup costs 1/5 as much as expensive milk modifiers and is available at all food stores.

Free to Physicians—Book of Infant Feeding Formulas with convenient schedule pads. Write: Karo Infant Feeding Guide, Box 280, New York 46, N. Y.

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IN ALL DIARRHEAS . . . REGARDLESS OF ETIOLOGY

comprehensive control with **CREMOMYCIN®**

SULFASUXIDINE*® PECTIN-KAOLIN-NEOMYCIN SUSPENSION

SOOTHING ACTION . . . Kaolin and pectin coat and soothe the inflamed mucosa, adsorb toxins and help reduce intestinal hypermotility.

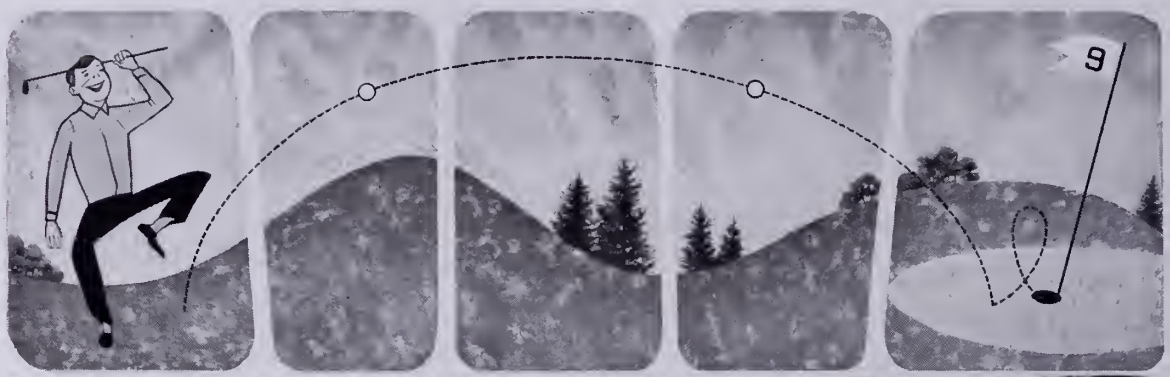
BROAD THERAPY . . . The combined antibacterial effectiveness of neomycin and Sulfasuxidine is concentrated in the bowel since the absorption of both agents is negligible.

LOCAL IRRITATION IS REDUCED and control is instituted against spread of infective organisms and loss of body fluid.

PALATABLE creamy pink, fruit-flavored CREMOMYCIN is pleasant tasting, readily accepted by patients of all ages.

*Sulfasuxidine is a trade-mark of Merck & Co., Inc.

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LEAVES NOTHING TO BE DESIRED

HYCOMINE® Syrup

THE COMPLETE Rx FOR COUGH CONTROL

cough sedative / antihistamine / expectorant

- relieves cough and related symptoms in 15-20 minutes
- effective for 6 hours or longer • promotes expectoration
- rarely constipates • cherry-flavored

Each teaspoonful (5 cc.) contains:

Hycodan®		
Dihydrocodeinone Bitartrate	5 mg.	6.5 mg.
(Warning: May be habit-forming)		
Homatropine Methylbromide	1.5 mg.	
Pyrilamine Maleate		12.5 mg.
Ammonium Chloride		60 mg.
Sodium Citrate		85 mg.

Adult Dosage: one teaspoonful q. 6 h. May be habit-forming.
Federal law permits oral prescription.

Endo®

Literature on request
ENDO LABORATORIES
Richmond Hill 18, New York

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Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

†Trademark *Patent #2,841,971



Supp-hose†*

FOR LEG FATIGUE AND MILD VARICOSITIES

Recent clinical research demonstrated the excellent value of Supp-hose for leg fatigue, and mild disorders where heavy surgical stockings are not prescribed. The advantage of Supp-hose is that it looks just like any sheer nylon stocking, thus it overcomes one of the main objections of the patient concerned about her appearance.

SO MANY WOMEN COMPLAIN ABOUT LEG FATIGUE!

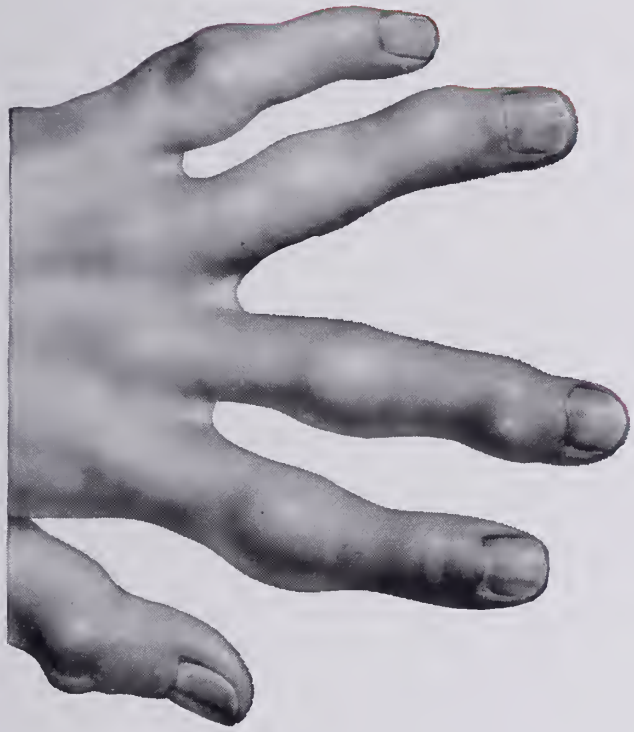
As you know, expectant mothers, housewives, working women, and women with mild varicosities all complain about discomfort of the extremities. Supp-hose eases this leg fatigue and gives gentle support all day long. Yet Supp-hose contains no rubber! Every stitch is fine nylon with a special twist that provides an elastic quality.

A VERY ECONOMICAL STOCKING!

Patented Supp-hose costs a woman just one-third what she usually pays for heavier surgical stockings. And wear tests indicate Supp-hose should give five times the wear of ordinary nylons. Supp-hose is available in proportioned sizes in beige, natural and white. At drug and department stores.

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ARTHRITIS... OR GOUT?



BENEMID®

PROBENECID

A SPECIFIC FOR GOUT

GOUT—THE DIAGNOSTIC PROBLEM

Clinical "curiosity" rather than clinical "instinct" is the key to accurate diagnosis of gout. Visible manifestations may not appear until late in the course of the disease. Moreover, the patient's description of the pain and the site of the pain may not differ markedly from other articular disorders.

THE FOLLOWING FINDINGS ARE HIGHLY INDICATIVE OF GOUT: (1) *Tophaceous deposits* resulting in irregular, asymmetrical deformity of joints; (2) *Elevated serum uric acid levels* (above 6 mg.%); (3) *Pain relief with colchicine.* When findings suggest gout, therapy with 'Benemid' should be started immediately.

BENEMID®—AN EFFECTIVE URICOSURIC AGENT

'Benemid' is firmly established as an *effective* and exceptionally *safe* uricosuric agent. 'Benemid' approximately doubles the excretion of uric acid; reduces serum uric acid levels toward normal; often prevents formation of new tophi, and gradually mobilizes existing uric acid deposits; minimizes incidence and severity of future attacks.

'Benemid' is of remarkably low toxicity—usually so low as to be clinically insignificant—even in patients who have been on uninterrupted therapy for almost a decade. The uricosuric effects of salicylates and 'Benemid' are mutually antagonistic and these compounds should not be used together.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

MSD MERCK SHARP & DOHME

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**TRADEMARK, REG. U. S. PAT. OFF —THE UPJOHN BRAND OF CRYSTALLINE NOVOBIOCIN SODIUM

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The Upjohn Company, Kalamazoo, Michigan

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Panalba*

(PANmycin† Phosphate plus ALBAmycin**)

your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.



Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Panmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride . . . . . 250 mg.
Albamycin (as novobiocin sodium) . . . 125 mg.

2. Panalba KM,†† Flavored Granules, 60 cc. size bottle. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains.

Panmycin (tetracycline) equivalent to tetracycline hydrochloride . . . . . 125 mg.
Albamycin (as novobiocin calcium) 62.5 mg.
Potassium metaphosphate . . . . . 100 mg.

Dosage:

Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.

Panalba KM Granules
For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 20 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.





Symptomatic

relief

. . . plus!

Achrocidin*

TETRACYCLINE-ANTIHISTAMINE-ANALGESIC COMPOUND LEDERLE



pneumonitis

adenitis

sinusitis

otitis

bronchitis

COMBINES: Traditional components for relief of the annoying symptoms of early upper respiratory infections...

PLUS: Protection against bacterial complications often associated with such conditions.

TABLETS (sugar coated)
Each contains:

ACHROMYCIN* Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottles of 24 and 100.

SYRUP (lemon-lime flavored, caffeine-free)
Each 5 cc. teaspoonful contains:

ACHROMYCIN* Tetracycline equivalent to Tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 fl. oz.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children adjusted according to age and weight.
Available on prescription only.

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Bed of Digitalis purpurea
with Campanula (Canterbury Bells) in foreground

Not far from here are manufactured
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Pil. Digitalis (Davies, Rose)
0.1 Gram (1½ grains) or 1 U.S.P. Digitalis Unit.
They are physiologically standardized,
with an expiration date on each package.
Being Digitalis in its completeness,
this preparation comprises the
entire therapeutic value of the drug.
It provides the physician with a safe and effective
means of digitalizing the cardiac patient
and of maintaining the necessary saturation.
Security lies in prescribing the
"original bottle of 35 pills, Davies, Rose."

Clinical samples and literature sent to physicians on request

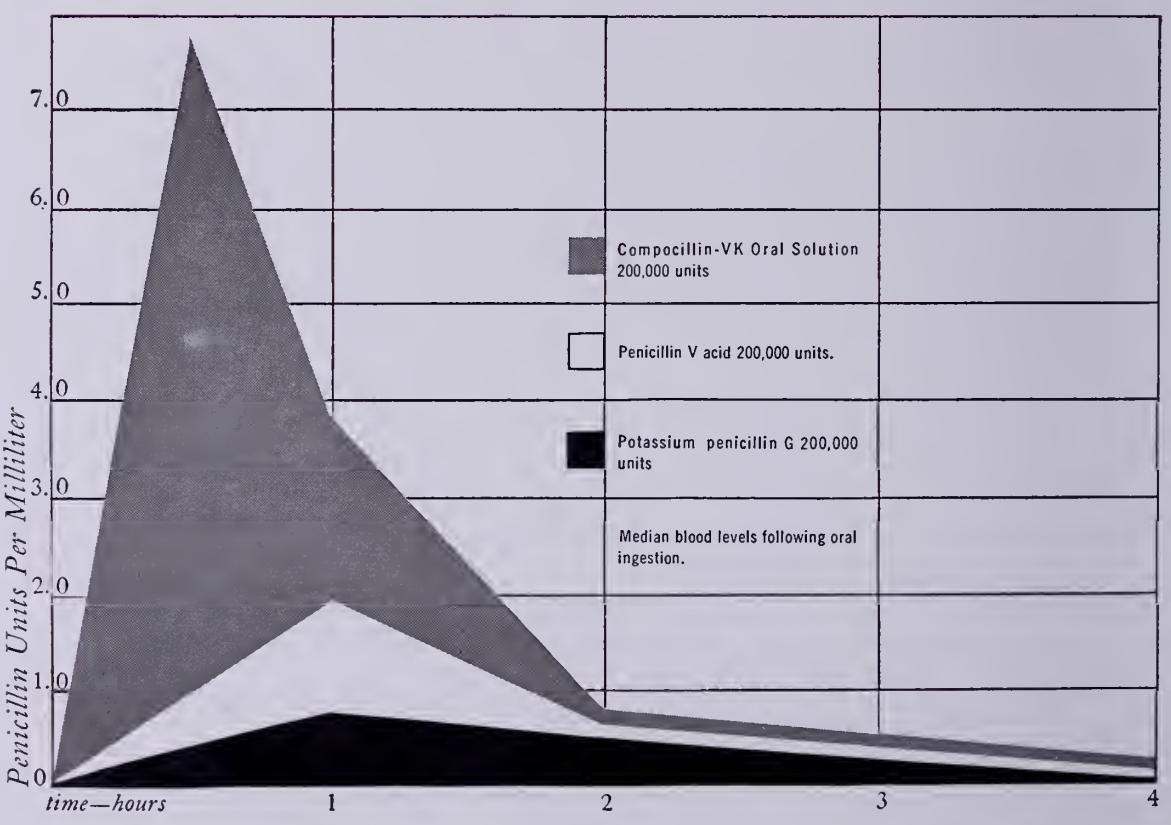
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Good-tasting, cherry-flavored . . .





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an oral solution of potassium penicillin V



plus the higher blood levels of potassium penicillin V



POTASSIUM PENICILLIN V

Compocillin®-VK

granules for oral solution

Now, for oral administration, COMPOCILLIN-VK Granules offer you a solution of potassium penicillin V. Developed by Abbott Laboratories, the granules are dry and easily reconstituted with water.

The clear, red solution has a fresh, cherry flavor, is taste-tested and is well-accepted by patients. And they'll get those high potassium penicillin V blood levels (note chart).

COMPOCILLIN-VK is indicated for all infections susceptible to oral penicillin therapy. Also, in treating recurring rheumatic fever and in managing rheumatic carditis. COMPOCILLIN-VK may be used in counteracting complications from severe viral attacks.

The initial recommended dose: In acute infections, the range is from 125 mg. (200,000 units) three times daily to 250 mg. (400,000 units) every four hours. For young children, the adult dose may be reduced in proportion to age and weight. For prophylactic use, 125 mg. (200,000 units) may be administered once or twice daily.

COMPOCILLIN-VK Granules for Oral Solution come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of the reconstituted solution represents 125 mg. (200,000 units) of potassium penicillin V. The dry granules stay stable under ordinary room temperatures. When reconstituted, the solution will remain potent for two weeks under refrigeration.

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For every topical indication, a Burroughs Wellcome 'SPORIN'...



OINTMENT: Tubes of ⅛ oz. and ½ oz. (with applicator tip) for ophthalmic or dermatologic application.

OTIC DROPS: Bottles of 5 cc. with sterile dropper.



OINTMENT: Tubes of ½ and 1 oz. and tubes of ⅛ oz. with ophthalmic tip.

OPHTHALMIC SOLUTION: Bottles of 10 cc. with sterile dropper.

NEW { LOTION: Plastic squeeze bottles of 20 cc.
NEW { POWDER: Shaker-top bottles of 10 Gm.



OINTMENT: Tubes of ½ oz., 1 oz. and ⅛ oz. (ophthalmic tip).

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METIMYD®

Ophthalmic Suspension
prednisolone, 0.5%,
plus sulfacetamide sodium, 10%
Ointment with Neomycin, 0.25%

in blepharitis,
conjunctivitis,
episcleritis,
keratitis,
meibomitis
and other
external eye
conditions



- prednisolone effectively checks inflammation and allergy
- sulfacetamide sodium, with its wide-spectrum antibacterial range, controls infections caused by common eye pathogens
- addition of neomycin sulfate to prednisolone and sulfacetamide sodium in METIMYD Ointment broadens the antibacterial spectrum; the ointment also assures sustained therapeutic action during the night

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Provides therapeutic quantities of all known hematinic factors

Potent 'Trinsicon' offers complete and convenient anemia therapy plus maximum absorption and tolerance. Just two Pulvules 'Trinsicon' daily produce a standard response in the average uncomplicated case of pernicious anemia (and related megaloblastic anemias) and provide at least an average dose of iron for hypochromic anemias, including nutritional deficiency types. The intrinsic factor in the 'Trinsicon' formula enhances (does not inhibit) vitamin B_{12} absorption.

Available in bottles of 60 and 500 at pharmacies everywhere.

*'Trinsicon' (Hematinic Concentrate with Intrinsic Factor, Lilly)

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Controls Stress

Relieves Distress in smooth muscle spasm

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Pro-Banthine with Dartal®

— for positive relief of cholinergic spasm. — a new and safer agent for normalizing emotions.



PRO-BANTHINE WITH DARTAL offers you a new, specific and reliable control of visceral motor disorders, especially when these disorders are induced or aggravated by psychic tensions or anxiety.

Pro-Banthine has won wide clinical acceptance as the most effective drug for controlling gastrointestinal hypermotility and hypersecretion.

Dartal, a new phenothiazine congener, offers greater safety, flexibility and effectiveness in stabilizing emotional agitation.

The combination of each drug in fully effective doses in Pro-Banthine with Dartal gives a new means of approach to the medical management of functional gastrointestinal disorders mediated by the parasympathetic nervous system.

Specific Clinical Applications: Functional gastrointestinal disturbances, gastritis, pylorospasm, peptic ulcer, spastic colon (irritable bowel), biliary dyskinesia.

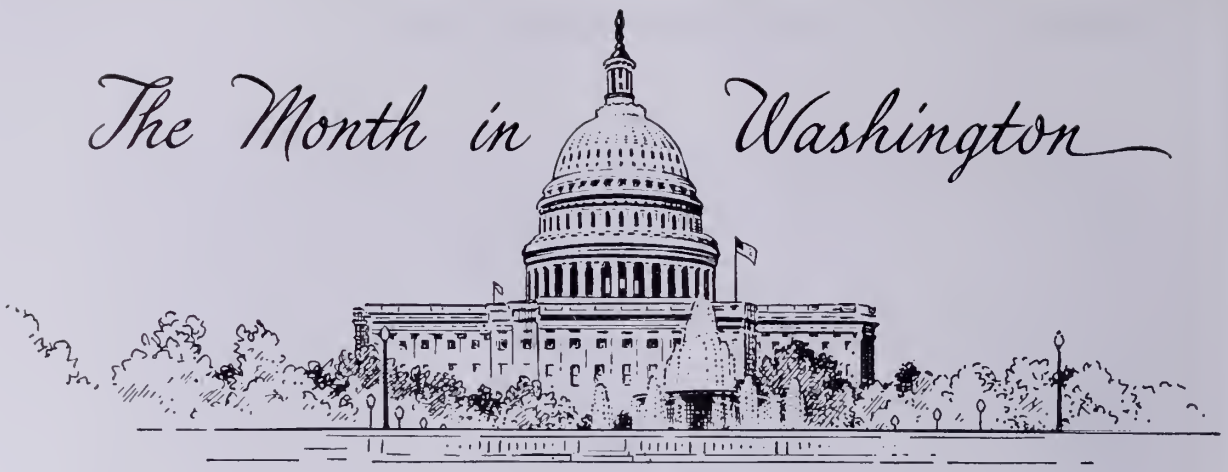
Dosage: One tablet three times a day.

Availability: Aqua-colored tablets containing 15 mg. of Pro-Banthine (brand of propantheline bromide) and 5 mg. of Dartal (brand of thiopropazate dihydrochloride).

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SEARLE

The Month in Washington



Washington, D. C.—The civilian Medicare program is struggling through an uncomfortable period of readjustment while attempting to cut its cost by about 30 per cent.

Had the program continued the way it was operating last year, the cost this year would be an estimated $100 million. Instead, the Defense Department, on the urging of Congress, is attempting to keep the costs within the appropriated $70.2 million.

No one can estimate as yet actually what is being saved. Some services that previously were authorized in civilian hospitals and from civilian doctors have been eliminated, and thus these costs have been shifted from the government to the service families. At the same time, many dependents who had been cared for outside the military now are required to go to the service hospitals.

If they don't like what is happening, there is not much the Medicare administrators, the doctors and the hospitals can do about it—at least not until the new Congress meets next January. Then, if the situation is out of hand and there is widespread discontent among the service families, the problem can be returned to the lap of Congress.

Awkward as are the restrictions in some areas, the situation could have been much worse. The House originally proposed only $60 million for the civilian program, and ordered the Defense Department not to exceed that figure. In the Senate, Senator Knowland (R., Calif.) sponsored an amendment increasing the total of $70.2 million, and lifting the ceiling on spending. The Knowland proposal was approved.

The conference committee accepted the Senate changes, but in its report on the bill it instructed the Department to stay within the $70.2 million. This the Department is attempting to do, but if the figure has to be exceeded for good reasons, the Department will have to shift funds or ask for a supplemental appropriation and explain the need.

If the ceiling had been kept in the bill itself, the Department couldn't have spent a penny more than the $60 million.

Here are the major restrictions, as outlined by the Department to a meeting of Medicare contractor representatives:

Dependents living with their sponsors are to use military facilities, unless the military authorities certify that civilian care is necessary because service facilities are not available. Dependents not living with sponsors are to have freedom of choice of military or civilian medicine, as now.

In maternity cases, if the patients are living apart from sponsors, they will continue to have freedom of choice. If living with sponsors, new patients or those in the first trimester must use service facilities if available. Those in the second and third trimesters, if under civilian care on October 1, may continue, but if for any reason they change doctors, military facilities must be used if available.

The new regulations also discontinue all services "not clearly specified in the law" for all dependents. The eliminated services include medical care ordinarily rendered on an outpatient basis, acute emotional disorders and elective surgery. Emergency care may be obtained from civilian sources without prior authorization.

Where more than one service facility is located in the area, a military clearing house will screen dependents and hospitals to insure that all service hospitals are used "to the optimum."

* * *

Congress has received a variety of advice on what to do about the hospitalization of veterans now and in the years ahead. Everybody seems to agree that the next 20 to 30 years will see a sharp increase in the number of non-service-connected disabilities among the veteran population. The question, then, is how many of these cases should be taken care of by the federal government.

During hearings by the House Veterans Affairs Committee, Dr. Russell B. Roth, chairman of the American Medical Association Committee on Federal Medical Services, reiterated the AMA stand that service-connected cases should receive the best care possible in VA facilities and that non-service-connected illness should be the responsibility of state and local governments, if the veteran is unable to pay for his care.

Before adjourning, the House Committee introduced a bill that did little to clear up the issue

of non-service-connected care. It was aimed rather at the Budget Bureau in an effort to assure that some 5,000 beds now closed because of "administrative decisions" would be placed in use—presumably for non-service-connected cases.

NOTES

A group of physicians, research executives and a former director of the Budget Bureau has concluded that the nation should treble its expenditures for medical research and double its annual output of physicians, all in the next 12 years. The consultants' group to the Secretary of Health, Education, and Welfare proposes that the federal government supply about half a billion dollars by 1970, with an equal amount to come from industry and philanthropy. Head of the study group was Dr. Stanhope Bayne-Jones, former dean of the Yale medical school.

* * *

Under a Senate resolution, a statue of the late Dr. Florence Rena Sabin, who was noted for her research in the lymphatic system and tuberculosis, would be placed in the Capitol's Statuary Hall, as one of Colorado's distinguished citizens. Each state is allowed two such statues.

HEALTH EDUCATION WORKSHOP

The Tenth Annual Health Education Workshop was held in Ames on June 26 and 27, under the sponsorship of 32 state organizations interested in health. The Iowa State Medical Society was one of the sponsoring organizations, and its Auxiliary had four members present.

A new sort of organization, the school and community health council, was proposed at the workshop, and procedures for establishing and activating groups of that sort constituted the objective of the workshop. It is thought that the county superintendent or school system around which they are formed may help considerably in keeping them at work.

The technic of "brainstorming" was taught to the participants in the workshop by a representative of the Educational Department of Bristol-Meyers Co., and it was used as a method of evoking suggestions for organizing a lay group into a school and community health council.

There were several excellent speakers on the program: Mr. Sasser, superintendent of the state school for the mentally retarded at Glenwood; Mr. John D. Healy, executive director of the Iowa Division of the American Cancer Society; Dr. Donald Dukelow, a health-education consultant from the Chicago office of the AMA; and a number of others. Dr. Dukelow explained many of the pitfalls into which health councils may stumble, and some of the reasons for the misunderstandings between organized lay health groups and the medical profession.





Personals



On August 1, **Dr. Richard F. Looker** became director of pathology at St. Luke's Hospital, Cedar Rapids. He received his M.D. degree from the University of Kansas in 1949, and served his internship and residency at St. Francis Hospital, Wichita. Remaining at that Hospital, he subsequently rose to the position of associate chief of pathology there. He has been certified in pathologic anatomy by the American Board of Pathology, and is eligible for certification in clinical pathology.

Dr. Richard Widman, who has practiced at the McVay Memorial Hospital, in Lake City, since last November, has left to take a residency in internal medicine at the Orange County Hospital, in California.

Dr. D. R. Baughman, who has been a resident in radiology during the past three years, first at Iowa City and more recently in Long Beach, California, has entered the practice of his specialty with **Dr. M. S. Lagen** in Dubuque.

About 100 doctors attended a meeting of the Woodbury County Medical Society at the Sheraton-Warrior Hotel in Sioux City on June 19. The principal speaker was **Dr. Marcus Bach,** of the school of religion at S.U.I.

The August issue of IOWA BUSINESS AND INDUSTRY contained a photograph and a rather full biographical sketch of **Dr. Walter D. Abbott,** president of the Iowa State Medical Society.

At a meeting on June 23, the Rotary Club of Davenport honored five of its members, one of them being **Dr. Gordon Harkness.** A member continuously since just one year after the founding of the organization, Dr. Harkness has been highly active in its work. He was honored *in absentia,* for on that day he was at the AMA meeting in San Francisco.

Dr. William Mulry, formerly of Carroll, began work as radiologist at the Palo Alto County Hospital in Emmetsburg on August 15.

Dr. Eugene L. Johnson, a 1956 graduate of the

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We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

- LIFETIME INCOME FOR SICKNESS
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- DOUBLE BENEFITS FOR SPECIFIC AUTO ACCIDENTS
  *(Available up to $25,000 principal sum which doubles to $50,000.)
- LIBERAL RENEWAL PROVISIONS
- NUMBER OF CLAIMS NOT LIMITED
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If Monilial overgrowth is a factor

Achrostatin* V

TETRACYCLINE (PHOSPHATE-BUFFERED) AND NYSTATIN

SUPPLIED:
CAPSULES contain 250 mg. tetracycline HCl equivalent (phosphate-buffered) and 250,000 units Nystatin. ORAL SUSPENSION (cherry-mint flavored) Each 5 cc. teaspoonful contains 125 mg. tetracycline HCl equivalent (phosphate-buffered) and 125,000 units Nystatin.

DOSAGE:
Basic oral dosage (6-7 mg. per lb. body weight per day) in the average adult is 4 capsules or 8 tsp. of ACHROSTATIN V per day, equivalent to 1 Gm. of ACHROMYCIN V.

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Combines ACHROMYCIN V with NYSTATIN

ACHROSTATIN V combines ACHROMYCIN† V...the new rapid-acting oral form of ACHROMYCIN† Tetracycline...noted for its outstanding effectiveness against more than 50 different infections...and NYSTATIN...the antifungal specific. ACHROSTATIN V provides particularly effective therapy for those patients who are prone to monilial overgrowth during a protracted course of antibiotic treatment.

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- postoperatively
- in pregnancy when vomiting is persistent
- following neurosurgical diagnostic procedures
- in infections, intra-abdominal disease, and carcinomatosis
- after nitrogen mustard therapy

for nausea and vomiting

VESPRIN

Squibb Trifluprom azine

- provides prompt, potent, and long-lasting control
- capable of depressing the gag reflex
- effective in cases refractory to other potent antiemetic agents
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- no pain or irritation on injection

ANTIEMETIC DOSAGE:
Intravenous: 8 mg. average single dose
Dosage range 2-10 mg.
Intramuscular: 15 mg. average single dose
Dosage range 5-15 mg.
If subsequent parenteral dose is needed, one-half the original dose will usually suffice
Oral: 10-20 mg. initially; then 10 mg. t.i.d.

SUPPLY:
Parenteral solution – 1 cc. ampuls (20mg./cc.)
Oral tablets – 10 mg., 25 mg., 50 mg., in bottles of 50 and 500

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College of Medicine at S.U.I. who recently completed his internship at Pierce County Hospital, in Tacoma, joined **Drs. D. F. Rodawig Sr.** and **Jr.** and **Phil Scott** in practice at Spirit Lake on July 1.

On August 10, **Dr. E. G. Nafziger** began practice at Battle Creek, Iowa. He is a graduate of Hahnemann Medical College, Philadelphia, and came to Iowa after eight years of practice in Oxford, Wisconsin, and one year in California, Pennsylvania.

At a meeting in Mason City on July 26, sponsored by the Iowa Division of the American Cancer Society and the Iowa Heart Association, **Dr. Herman J. Smith**, of Des Moines, spoke on the medicolegal aspects of cardiovascular disease, **Dr. Walter Kirkendall**, of the Iowa City VA Hospital, discussed current concepts in hypertension, **Dr. R. C. Hickey**, of the S.U.I. Department of Surgery, discussed preventable cancer, and **Dr. W. C. Keettel**, of the S.U.I. Department of Obstetrics and Gynecology, talked on cervical cytology. In the evening, a dinner dance was held at the Mason City Country Club for the doctors and their wives.

Dr. Maynard L. Jones, of Colfax has associated himself with **Drs. Frank** and **Dorothy Forsythe** at Newton. For the present, he will continue serving patients in the morning at his office in Colfax, and will keep office hours at Newton in the afternoons. He has moved his family to Newton.

In a two-car accident near Chardon, Ohio, on July 28, **Dr. John H. Randall**, professor and head of obstetrics and gynecology at the S.U.I. College of Medicine, suffered a compound leg fracture and cuts. He was later returned to Iowa City in an ambulance. His wife and his 23-year-old son were treated at a local hospital and released.

Dr. Harry A. Peddie, a medical graduate of the University of Edinburgh who recently completed his internship at Mercy Hospital, Des Moines, took over **Dr. Allan G. Felter**'s practice at Van Metre, while Dr. Felter attended a cardiac conference in Brussels, Belgium.

Dr. J. E. Christopherson, of Mason City, underwent major surgery at Park Hospital, there, on July 28. **Dr. Ralph E. Smiley** has been appointed to substitute for him as coroner during his convalescence.



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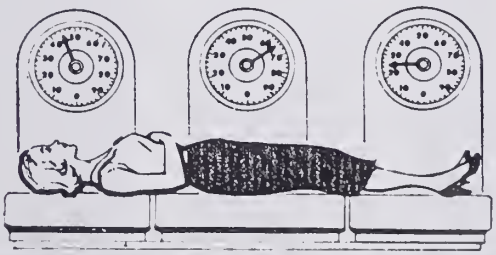
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Early in August, **Dr.** and **Mrs. John W. Schwartz,** of Sioux City, returned from the American College of Surgeons' Scandinavian cruise. Scientific meetings were held in Stockholm, Oslo, Copenhagen and Edinburgh, and the group, consisting of about 600 physicians and their wives, also visited England and Finland.

The Linn County Medical Society, with the cooperation of parent-teacher associations in Cedar Rapids, conducted a public forum on pediatric problems in Coe College Auditorium on August 19. It was the first of four public meetings in a new series. The participants included **Dr. S. M. Lehr,** moderator, and **Drs. Morgan Foster, John Downing, John Hecker** and **James Redmond.**

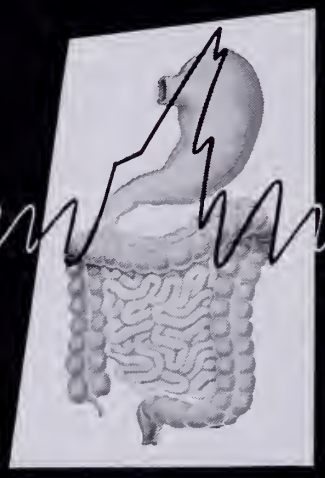
Dr. Thomas K. Craigmile, a graduate of the Northwestern University medical school who received his specialty training at Presbyterian Hospital, New York City, and subsequently was chief resident neurosurgeon at the University of Colorado Medical Center, in Denver, has begun the private practice of neurosurgery with **Dr. Stanton L. Goldstein** in Davenport and Moline.

Dr. Loren G. Peterson, an internist who practices the subspecialty of diabetes and endocrinology, has joined **Drs. H. J. Smith, D. A. Glomset, C. H. Gutenkauf** and **S. J. Zoeckler** at the Internal Medical Clinic, on Ingersoll Avenue in Des Moines. He will replace **Dr. Arthur G. Lueck,** who it has been announced will leave private practice in October.

Dr. Peterson took his M.D. at the State University of Iowa in 1950, and following his internship he practiced at Holstein from July, 1951, until July, 1953. Then, following two years of military service, he was a resident at the Ohio State

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References: 1. Innerfield, I.; Shub, H., and Boyd, L. J.: New England J. Med. 258: 1069 (May 24) 1958. 2. Miller, J. M.; Godfrey, G. C.; Ginsberg, M. J., and Papastrat, C. J.: J. A. M. A. 166:478 (Feb. 1) 1958. 3. Davidson, E; Prigot, A., and Maynard, A. de L.: Harlem Hosp. Bull. 11: 1 (June) 1958 *Reg. U. S. Pat. Off.



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University Hospitals from 1955 until the middle of this year.

Dr. Howard Ruliffson was given a going-away party on July 29 by the medical staff and other personnel at the Buena Vista County Hospital, in Storm Lake. On behalf of the doctors, **Dr. R. R. Hansen** presented him a pen and pencil set; the hospital employees made him a gift of money; and a humorous resolution from the Pocahontas County Medical Society was read to him. On July 31, he dissolved his partnership with **Dr. James Cornish**, of Storm Lake, and left for Gilroy, California, where he will engage in solo practice.

Dr. William R. Turner, who has practiced in Fort Dodge for more than 40 years, announced his retirement and closed his office there on August 1. He had limited his work to dermatology since 1938. For the present at least, Dr. Turner intends to continue living in Fort Dodge.

Perhaps while his office was closed for the noon hour on July 29, about $203 belonging to **Dr. Robert Wettach**, of Mt. Pleasant, was taken from his cash drawer. The theft was discovered during the afternoon.

Dr. Paul J. Crowley has moved his office from the Davenport Bank Building to the Village Shopping Center on Kimberly Road in Davenport. His present location is temporary, pending completion of some remodeling that is being done at the Shopping Center.

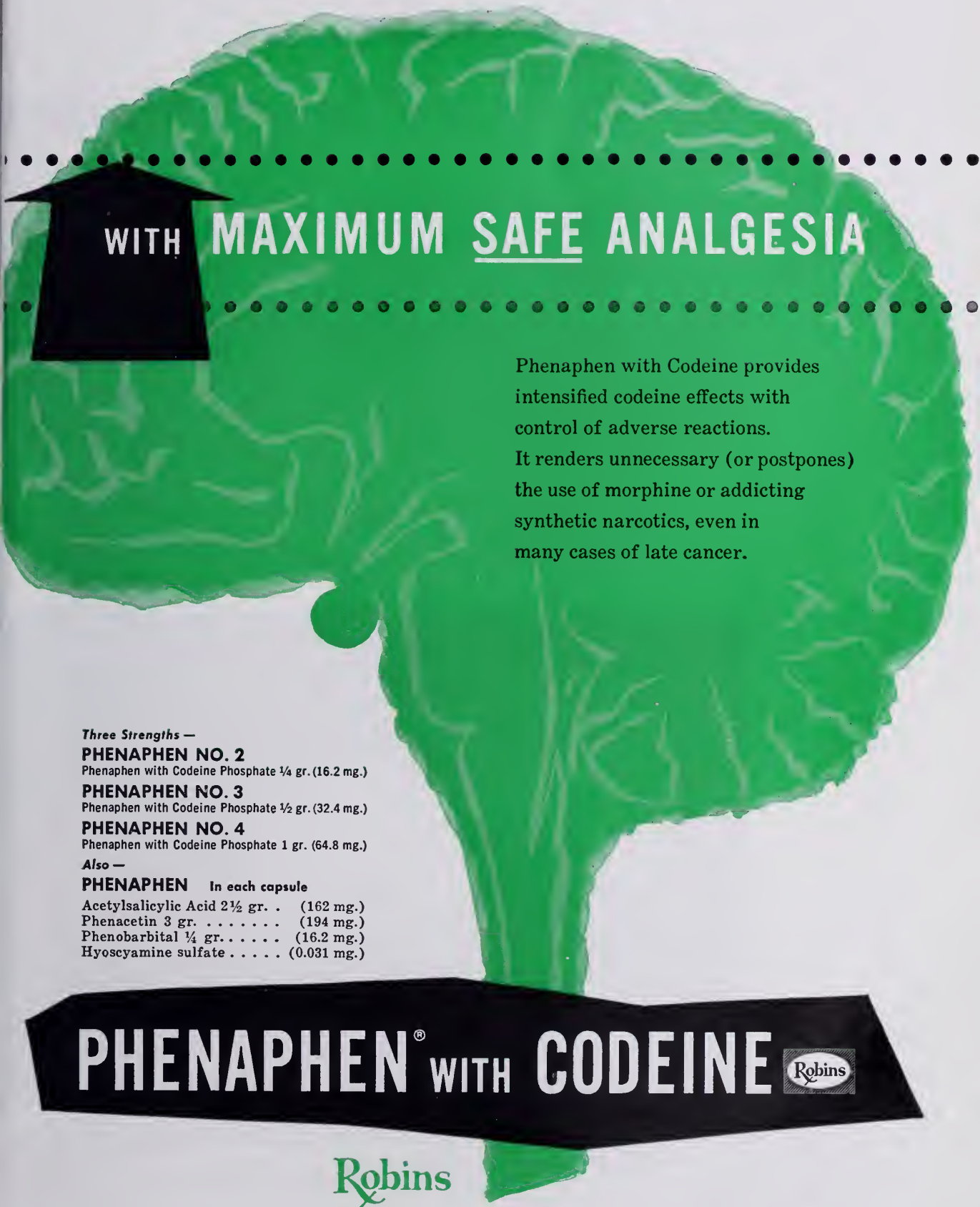
Dr. Don Penly, of Cedar Falls, moved into his new office building at 2205 College Street on July 1. He has practiced in the town since 1946.

On August 2, **Dr. Leon Galinsky**, head of the tuberculosis section at Broadlawns-Polk County Hospital, Des Moines, announced that he will shortly enter private practice and devote no more than part of his time to the Broadlawns work. Thereafter, the hospital will limit its tuberculosis program to diagnosis and short-term care, and will cut its allocation of beds for that disease from about 100 to 16.

Of the 31 patients on the TB service at Broadlawns on a recent date, all were scheduled either to go home or to be transferred to the State Sanatorium at Oakdale within a few weeks. Nowadays, when a patient enters Broadlawns with suspected tuberculosis, the nature of his illness is diagnosed within a few days, and he is kept there for no more than six weeks for tests designed to



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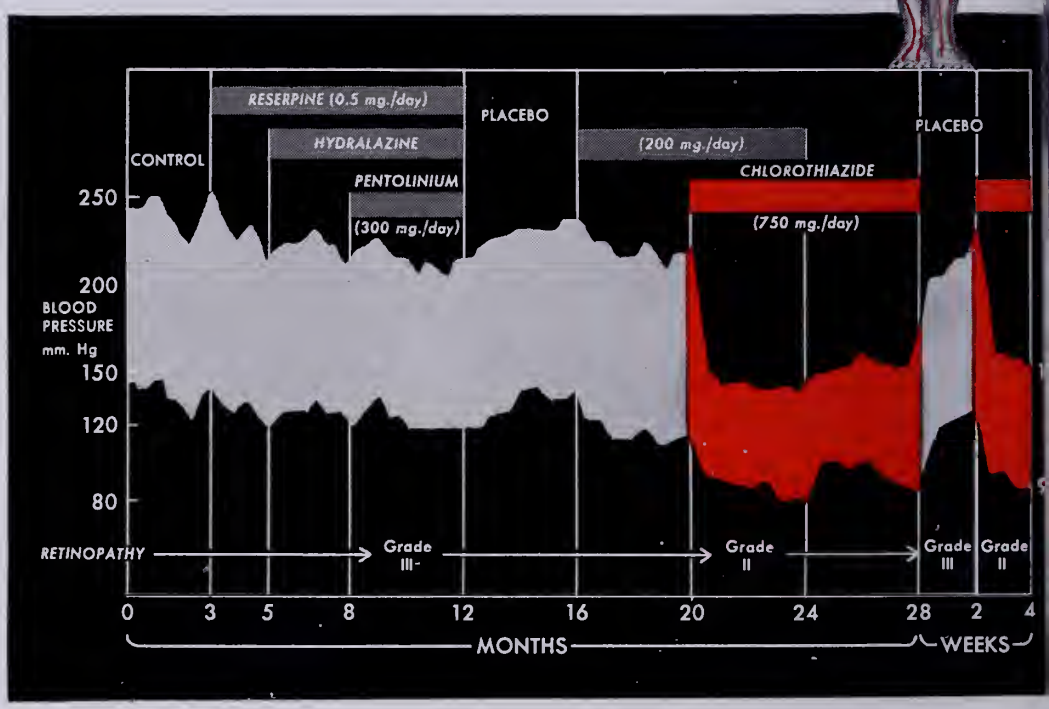
Wilkins, R. W.: New England J. Med. **257:1026**, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."



Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166:137**, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension,"
'Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 19

MERCK SHARP & DOHME Division of MERCK & CO., Inc., Philadelphia 1, Pa. MSD

e effectiveness of 'DIURIL' (CHLOROTHIAZIDE) in Hypertension

as simple as 1-2-3

1 **INITIATE THERAPY WITH 'DIURIL'.** 'DIURIL' is given in a dosage range of from 250 mg. twice a day to 500 mg. three times a day.

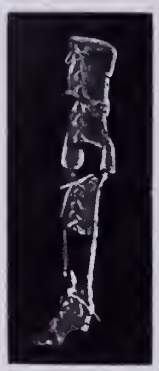
2 **ADJUST DOSAGE OF OTHER AGENTS.** The dosage of other antihypertensive medication (reserpine, veratrum, hydralazine, etc.) is adjusted as indicated by patient response. If the patient is established on a ganglionic blocking agent (e.g., 'INVERSINE') this should be continued, but the total daily dose should be immediately reduced by as much as 25 to 50 per cent. This will reduce the serious side effects often observed with ganglionic blockade.

3 **ADJUST DOSAGE OF ALL MEDICATION.** The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

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Starting Dates—Fall, 1958

SURGERY—Surgical Technic, Two Weeks, September 29, October 27
Surgery of Colon and Rectum, One Week, September 22, October 27
Basic Principles in General Surgery, Two Weeks, October 13
Gallbladder Surgery, Three Days, November 3
Surgery of Hernia, Three Days, November 6
General Surgery, Two Weeks, November 10; One Week, October 27
Fractures and Traumatic Surgery, Two Weeks, December 1
American Board Review Course, Two Weeks, November 10
Blood Vessel Surgery, One Week, October 20
GYNECOLOGY AND OBSTETRICS—Office and Operative Gynecology, Two Weeks, October 13
Vaginal Approach to Pelvic Surgery, One Week, October 6
General and Surgical Obstetrics, Two Weeks, October 27
MEDICINE—General Review Course, Two Weeks, October 20
Electrocardiography, Two-Week Basic Course, October 6
Gastroscopy and Gastroenterology, Two Weeks, November 3
American Board Review Course, One Week, September 29. (Oversubscribed—Available again in Spring, 1959)
DERMATOLOGY—Clinical and Didactic Course, Two Weeks, November 3
UROLOGY—Two-Week Intensive Course, October 13
Ten-Day Practical Course in Cystoscopy by appointment
RADIOLOGY—Diagnostic X-Ray, Two Weeks, December 1
Clinical Uses of Radioisotopes, Two Weeks, September 29

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reveal which drug regimen will do him the most good. Thereafter, he is usually returned home for continued care.

Dr. Galinsky took pains to point out that the incidence of new cases of tuberculosis remains high. "The new medications," he said, "have merely facilitated a shortening of the period of hospitalization for most patients."

Though Sunny Crest Sanatorium at Dubuque and Pine Knoll Sanatorium at Davenport have been closed, **Dr. George Smiley** says his Sunny Slope Sanatorium at Ottumwa will remain in operation, for it plays an important part in the tuberculosis control program in southern Iowa, accepting patients from towns as widely separated as Burlington and Council Bluffs. From 50 to 55 of its 63 beds remain constantly filled. Communities in that part of the state, Dr. Smiley says, lack Polk County's highly specialized public health organization, with its enforcement powers. Thus, Sunny Slope must continue to provide long-term care for patients who can't or won't follow instructions as outpatients.

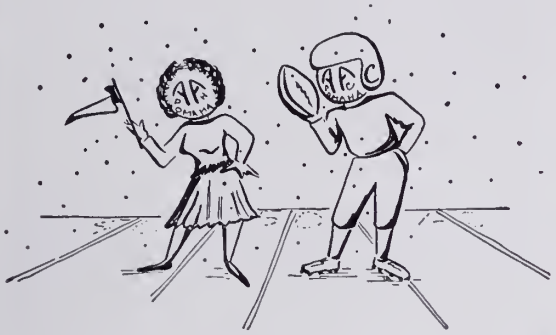
Oakdale's patient population fell to about 300 shortly after World War II, but it has risen to somewhere near its capacity of 400 since the closing of the hospitals in eastern Iowa.

On August 3, **Dr. Norman C. Knosp,** of Belle Plaine, was released from St. Luke's Hospital, Cedar Rapids, where he had been a patient. He was able to resume his practice immediately, on a limited basis.

Dr. W. C. Brinegar, superintendent of the Mental Health Institute at Cherokee, announced on August 11 that his institution's residency training program in psychiatry had received the approval of the residency review committee representing the American Board of Psychiatry and Neurology and the AMA Council on Medical Education and Hospitals. The Cherokee program was outlined on pages 324-325 of the June issue of this JOURNAL.

On August 13, a reception was held in the auditorium at the Independence Mental Health Institute in honor of **Dr. Selig Korson,** the new superintendent, and **Dr. Richard Cameron,** the new clinical director.

Dr. Cameron recently retired after 20 years of Army service, and holds the military rank of colonel. Since 1955, he has been chief of neuropsychiatry and director of neuropsychiatric training at Ft. Sam Houston, Texas. **Dr. Hans B. Molholm,** whom he replaces, has been clinical director only since last May, and he has now returned to the Arkansas State Hospital, Little Rock, where he held a like position before coming to Iowa.



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CORONARY VASODILATOR

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ORAL (tablet swallowed whole)
for dependable prophylaxis

SUBLINGUAL-ORAL
for immediate and sustained relief

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0.4 mg. (1/150 grain)—acts quickly

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signals patient when to swallow

PENTAERYTHRITOL TETRANITRATE—
15 mg. (1/4 grain)—prolongs action

For continuing prophylaxis patient swallows the entire Dilcoron tablet.

Average prophylactic dose:
1 tablet four times daily.

Therapeutic dose:
1 tablet held under the tongue until citrus flavor disappears, then swallowed.

Bottles of 100.

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Dr. L. W. Swanson, of Mason City, represented the Iowa State Medical Society on a special committee that met with the state safety director, **Mr. Russell Brown**, on August 8, to plan a study to find ways of improving the eye-test given to applicants for drivers' licenses.

Dr. Gene K. Van Zee will open an office for general practice in Pella shortly. He is a 1955 graduate of the College of Medicine at S.U.I. who interned at the Pensacola Naval Hospital and subsequently remained in the service for three years, stationed in Atsugi, Japan. He said that Pella's plans for the construction of a community hospital were the deciding factor in inducing him to return to his home town.

Dr. Helen E. Halbert, a psychiatrist, has begun private practice in Davenport. She holds an M.D. degree from Women's Medical College, Philadelphia, did her residency at S.U.I. and at Seton Psychiatric Institute, Baltimore, and until recently was a staff member at the Madison, Indiana, State Hospital. Her parents live in Davenport.

Work has been started on a professional building at 1949 First Avenue, S.E., in Cedar Rapids, which will contain about 20,000 square feet of usable floor space, divided into suites for 16 physicians and two dentists. The Higley Building Laboratory will also be relocated there. The structure will be ready for occupancy in about a year.

Dr. Herbert Douglas, who comes from Meriden, Connecticut, has opened a practice in Shelby. A new office building is being constructed for him. He is a 1957 graduate of the S.U.I. College of Medicine.

Mr. Don James, formerly an employee of the county hospital in Washington, Iowa, has opened a physicians' laboratory in Marion. The town has never before had such a service.

Mrs. Elizabeth Parker, administrator of Broadlawns-Polk County Hospital, Des Moines, has been made a fellow of the American College of Hospital Administrators.

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DIMETANE Extentabs (12 mg. each, coated) provide antihistamine effects daylong or nightlong for 10-12 hours. Tablets (4 mg. each, scored) or pleasant-tasting Elixir (2 mg./5 cc.) may be prescribed t.i.d. or q.i.d., or as supplementary dosage to Extentabs in acute allergic situations. A. H. ROBINS CO., INC., Richmond 20, Virginia. Ethical Pharmaceuticals of Merit Since 1878.

*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

A medical film will be shown and a business session will be held at the September 16 meeting of the Pottawattamie County Medical Society, at the Hotel Chieftain in Council Bluffs.

At a joint meeting of the Black Hawk County Medical Society and the Black Hawk County Bar Association to be held in September, **Geoffrey Mann, M.D., L.L.B.,** chief medical examiner for the state of Virginia, will speak on "The Medical Examiner System."

At 7:30 p.m. on September 2, at the Outing Club in Davenport, **Dr. Daniel F. Crowley, Jr.,** a Des Moines internist, will address the Scott County Medical Society on "The Problem of the Solitary Pulmonary Nodule." He is being sent there by the Iowa Trudeau Society as a part of its program of providing speakers at county medical society meetings. All interested physicians in the vicinity are welcome to attend.

Dr. L. B. Williams was recently chosen president of the Maquoketa Board of Education. He has been a member of that body for four years.

Dr. Ruth McChesney Yohe, a pediatrician who engaged in private practice and in school health work in Des Moines for a number of months after completing her residency at Blank Memorial Hospital, has moved to Kansas City, Kansas.

Drs. William M. Krigsten and **James E. Black,** of Sioux City, announced on August 1 that **Dr. Albert D. Blenderman** is henceforth to be associated with them in the practice of orthopedic surgery. Dr. Blenderman took his M.D. degree at the University of Vermont in 1943, and following his internship in Beverly, Massachusetts, and 32 months in the Air Force, engaged in general practice at Paullina, Iowa, for 7½ years. Since then, he has taken a residency in his specialty at the Dickson-Diveley Clinic and various hospitals in Kansas City, Missouri.

Dr. Chris A. Pascuzzi began the practice of pa-



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Robins

1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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new 3-way build-up for the under par child...

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with ample amounts of vitamins—B_1, B_6, B_{12}.

strengthen bodies with needed protein
Through the action of l-Lysine, cereal and other low-grade protein foods are up-graded to maximum growth potential.

discourage nutritional anemia
with iron in the well-tolerated form of ferric pyrophosphate...plus sorbitol for enhanced absorption of both iron and B_{12}.

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delicious cherry flavor— no unpleasant aftertaste

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Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.

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thology on July 1 with **Dr. George T. Joyce,** in Mason City, and is affiliated with Mercy Hospital there. He is a medical graduate of Creighton University (1950). He engaged in general practice at Sioux Falls for a year, and then, from 1952 to 1954, served in the Far East as Headquarters Battalion surgeon for the Third Marine Division Fleet Marine Force. Since leaving the military, he has been a resident at the Mayo Clinic and has become a diplomate of the American Board of Pathology.

Dr. P. W. VanMetre, of Rockwell City, is to receive a 15-Year Award for service to the Calhoun County Draft Board.

On about September 15, **Dr. Richard Allen** will arrive in Bloomfield from San Diego, to join **Dr. C. D. Fenton** in general practice.

Dr. Paul T. Cash, a Des Moines psychiatrist, and **Mrs. Reva Goodwin,** of Waterloo, were married at the Muehlebach Hotel, in Kansas City, on August 16, and started afterward on a trip to California. On their return, they will live at 3421 Wakonda Court, in Des Moines. Mrs. Cash is the widow of a Waterloo music store proprietor.

At a meeting to be held at 6:30 p.m., September 11, in the Montrose Hotel, in Cedar Rapids, **Dr. Louis T. Palumbo,** chief of surgery at the Des Moines VA Hospital, will address the Linn County Medical Society on "Upper Dorsal Sympathectomy, With Special Reference to Angina Pectoris."

Dr. Walter E. Neiswanger, who recently completed a residency in pathology at the Mayo Clinic, is affiliated with the Quad-City Pathologists group and has his office at St. Anthony's Hospital, Rock Island. He graduated from the Stritch School of Medicine, Chicago, in 1952, and went into residency training immediately after serving his internship.

At a housewarming party in his new home, during mid-August, **Dr. Clifford W. Losh,** a Des Moines urologist, was the victim of an accident in which he broke his eyeglasses and some fragments cut one of his eyes. He was taken to University Hospitals, Iowa City, for treatment.

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The reasons are fairly simple. Doctors like "Premarin," in the first place, because it really relieves the symptoms of the menopause. It doesn't just mask them — it replaces what the patient lacks — natural estrogen.

Furthermore, if the patient is suffering from headache, insomnia, and arthritic-like symptoms before the menopause and even after, "Premarin" takes care of that, too.

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CAPSULES (black and white)
250 mg., 125 mg.

ORAL SUSPENSION (orange flavored)
2 oz. bottle, 125 mg. per tsp. (5 cc.)

PEDIATRIC DROPS (orange flavored)
10 cc., 5 mg. per drop (100 mg. per cc.)
Calibrated dropper

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CAPSULES (black and pink)
250 mg. Cosa-Tetracyn (with 250,000 u. nystatin)

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For patients susceptible to monilial superinfection.

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- Analgesic
- Antihistamine

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REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therap 5:52 (Jan.) 1958. 3. Walch, E.: Dent. Med. Wschr. (April) 1956. 4. Shaiowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:25 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., an Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

*Trademark

MIDWEST CARDIAC CONFERENCE

The Ninth Annual Meeting of the Midwest Cardiac Conference will take place at the Town House Motel, in Omaha, on October 2, 3 and 4, immediately following a three-day University of Nebraska College of Medicine short course in electrocardiography. The sponsoring organizations are the Nebraska and Iowa Heart Associations, and the Creighton and Nebraska Colleges of Medicine. The fee will be $10 per day, and attendance will entitle AAGP members to Category I credit. The program is as follows:

Thursday, October 2

8:45 a.m. Registration
9:05 a.m. "The Relationship of the Streptococcus to the Natural History of Rheumatic Fever"—Alan C. Siegel, M.D., instructor in pediatrics at Northwestern University
9:45 a.m. "The Natural History of Rheumatic Heart Disease After the Age of 20"—Louis A. Soloff, M.D., professor of medicine and chief of the cardiac clinic at Temple University
10:50 a.m. "Valvular Heart Disease Following Successfully Treated Bacterial Endocarditis"—Benjamin Castleman, M.D., clinical professor of pathology at Harvard University
11:35 a.m. "The Functional Anatomy of Rheumatic Heart Disease"—Dr. Soloff
2:00 p.m. "Methods and Indications for the Prevention of Rheumatic Fever by Antibiotic Prophylaxis"—Dr. Siegel
2:40 p.m. "The Diagnosis of Valvular Involvement in Rheumatic Heart Disease"—Dr. Soloff
3:45 p.m. "The Therapy of Rheumatic Fever"—Dr. Siegel
4:30 p.m. "Primary Pulmonary Hypertension and Its Differential From Mitral Valvular Disease"—Don W. Chapman, M.D., clinical professor of medicine at Baylor University

Friday, October 3

9:00 a.m. "Cinematography of Human Heart Valves in Health and Disease"—Robert P. Glover, M.D., clinical professor of surgery at Temple University
9:45 a.m. "Rheumatoid Aortitis and Heart Disease"—Dr. Castleman
10:55 a.m. "The Pathologic Physiology of Mitral Valve Disease"—Gordon S. Myers, M.D., attendant cardiologist at the VA Hospital in West Roxbury, Massachusetts
11:45 a.m. "The Significance of Left Atrial Enlargement in Rheumatic Heart Disease"—Dr. Soloff
2:00 p.m. "A Method of Estimating the Degree of Myocardial and Valvular Involvement in Rheumatic Heart Disease With Mitral Stenosis"—Dr. Soloff
2:40 p.m. "Indications for and Results in Mitral Valvular Surgery, Including a Discussion of Mitral Valvulotomy During Pregnancy"—Dr. Chapman
3:55 p.m. "An Appraisal of Present-Day Closed Surgical Treatment of Rheumatic Heart Disease With Mitral Stenosis"—Dr. Soloff

Saturday, October 4

9:00 a.m. "The Pathologic Physiology of Aortic Valve Disease"—Dr. Glover
11:00 a.m. CLINICOPATHOLOGIC CONFERENCE

VETERINARY PUBLIC HEALTH

The University of Michigan's School of Public Health is to present its First Institute on Veterinary Public Health, in Ann Arbor, October 6-9. The topics of papers and round tables will center about the present and the potential usefulness of veterinarians in public health agencies, and the interrelationships of human and animal diseases.

Doctors who are interested in attending can secure copies of the program from the School of Public Health, 109 South Observatory Street, Ann Arbor.

SECOND ANNUAL

Symposium on Diabetes Mellitus

DRAKE HOTEL, CHICAGO

Monday, November 17, 1958

ACTION OF INSULIN—Rachmiel Levine, chairman of Department of Medicine and professorial lecturer in physiology, University of Chicago
ASPECTS OF PATHOLOGY OF DIABETES MELLITUS—W. Stanley Hartroft, Mallinckrodt professor and chairman, Department of Pathology, Washington University, St. Louis
RECENT CONCEPTS IN THE EARLY RECOGNITION OF DIABETES MELLITUS—Stefan S. Fajans, associate professor of internal medicine, Division of Endocrinology and Metabolism and Metabolic Research Unit, University of Michigan, Ann Arbor
MANAGEMENT OF THE AMBULATORY DIABETIC—Arthur R. Colwell, chairman of the Department of Medicine, Northwestern University, Chicago
MANAGEMENT OF SEVERE DIABETIC ACIDOSIS IN CHILDREN—Jack Metcoff, chairman, Division of Pediatrics, Michael Reese Hospital, and professor of pediatrics, Northwestern University, Chicago
PANEL DISCUSSION OF ORAL HYPOGLYCEMIC AGENTS—Moderator, Henry T. Ricketts, professor of medicine, University of Chicago Clinics
PROBLEMS OF THE PREGNANT DIABETIC—Ralph A. Reis, professor of obstetrics and gynecology, Northwestern University, Chicago
INFANTS OF DIABETIC MOTHERS—David Yi-Yung Hsia, director of research at Children's Memorial Hospital and professor of pediatrics at Northwestern University, Chicago
INSULIN ANTIBODIES—Joseph Skom, instructor in medicine and chief of the medical-obstetrical clinic, Northwestern University, Chicago
WOODYATT MEMORIAL LECTURE—Francis D. W. Lukens, professor of medicine and director of the George S. Cox Medical Research Institute, University of Pennsylvania, Philadelphia.

Enrollment fee $25, except for members of the Diabetes Association, medical students, interns and residents.

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Blue Shield



Prepayment for Elder Citizens

Voluntary prepayment programs now provide hospitalization in varying degrees for 123,000,000 people. More than 109,000,000 have surgical benefits, and approximately 72,000,000 have medical-benefit contracts which provide some coverage for non-surgical care during hospitalization.

Nationally, Blue Cross plans have some 53,000,000 enrolled, and more than 42,000,000 of that number have Blue Shield medical and surgical benefits. Of these subscribers, 6½ per cent are 65 or more years of age. Thus, the "Blues" are aware of the need for providing benefits to the aged, and are doing something about it.

In Iowa, the record is even better. Statistics just received from Des Moines Blue Cross indicate that 13.34 per cent of the Plan's total membership is composed of individuals over 65 years of age.

A closer analysis reveals that 7.58 per cent of the Des Moines Blue Cross Plan's group business falls in this age bracket, and that 16.62 per cent of the individually underwritten business (HIA primarily) and 31.79 per cent of persons leaving groups (group conversion) are over 65 years of age.

These figures prove that we, in Iowa, have done something toward meeting this problem, and that we are constantly studying methods by which we can enter this field even more aggressively.

The commercial insurance industry is also concerned with this problem. At least one commercial carrier is making a concerted effort to provide special insurance for our elder citizens. This problem faces the entire insurance industry, and any corporation that actively enters this field is to be commended. The "Blues" can't do it alone. Private enterprise must solve the problem, or the government will!

LIST OF PRECEPTORS, 1958

Each of the following members or groups of members of the Iowa State Medical Society undertook to act as preceptor for a senior medical student from the State University of Iowa during the summer that has just ended:

R. D. Acker and R. V. Corton, Waterloo
Holger M. Andersen, Strawberry Point
Wallace H. Ash, De Witt
William A. Baird, Ames
R. L. Bartley, Audubon
B. L. Basinger, Goldfield
Howard G. Beatty, Creston
Charles W. Beckman and Dwight G. Sattler, Kalona
Donald K. Benge, Hampton
G. W. Bennett, H. C. Bos, and F. O. Voigt, Oskaloosa
C. E. Berryhill, Readlyn
Galen C. Boller, Waterloo
John A. Broman, Maquoketa
Burns M. Byram, Marengo
Walter V. Campbell, Oskaloosa
Vincent H. Carstensen, Waverly
William A. Castles, Dallas Center
Paul F. Chesnut, Winterset
R. E. Clark, Manchester
F. N. Cole, Iowa Falls
Dwight E. Conklin, Lake City
Mary Ann Croker, Manchester
Robert F. Deranleau, Perry
Richard W. Driver, Waterloo
Dan S. Egbert, Fort Dodge
Luke A. Faber, Dubuque
Paul Ferguson, Lake City
Lyle F. Frink, Spencer
John P. Gallagher, Oelwein
Harold L. Ganzhorn, Mapleton
John L. Garred, Whiting
James F. Gerken, Waterloo
Paul E. Gibson, Des Moines 9
Arthur F. Grandinetti, Oelwein
Edward F. Hagen, Decorah
Dexter H. Hake, Knoxville
Harold Hallberg, Oelwein
Dale A. Harding, Eagle Grove
C. R. Harken, Osceola
Harry B. Helling, Fort Madison
Walker B. Henderson, Oelwein
John L. Hoyt, Creston
Lewis H. Jacques, Iowa City
Robert S. Jaggard, Oelwein
Kenneth J. Judiesch, Iowa City
E.M. Juel, Atlantic
Dean H. King, Spencer
Willard G. Kuehn, Clarinda
Paul A. LaPorte, Wellsburg
Lawrence V. Larsen, Harlan
Lester E. Larson, Decorah
J. F. Lawlor, Cherokee

(Continued on page lvii)

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BECKER, M. C., Simon, F. and Bernstein, A.: J. Newark Beth Israel Hosp. **9**:58 (January) 1958.

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for **NASAL STUFFINESS, TIGHTNESS, RHINORRHEA**

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THENFADIL® HCl 7.5 mg..... Effective antihistaminic to relieve rhinorrhea and enhance mucosal resistance to allergic complications.

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Children 6 to 12 years: 1 tablet three times daily.

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List of Preceptors

(Continued from page liii)

Scott Linge, Fayette
M. L. McCreedy, Washington
Robert C. McGeehon, Indianola
George C. McGinnis, Fort Madison
Lloyd H. Mattice, Sheldon
William H. Megorden, Mount Pleasant
Donald F. Miller, Williamsburg
Jay R. Miller, Wellman
L. A. Miller, North English
D. L. Moriarty, Cogley Clinic, Council Bluffs
M. L. Mosher, and Stephen C. Ware, Iowa City
K. W. Myers, Sheldon
R. M. Needles, Atlantic
Charles A. Nicoll, Panora
Paul E. Orcutt, Marion
Paul W. Osincup, Sioux City
Donald J. Ottilie, Oelwein
M. R. Paragas, Creston
Victor G. Parson, Des Moines 9
E. W. Paulus, Iowa City
Ivan R. Powers, Waterloo
Curtis W. Rainy, Elma
Kenneth D. Rodabaugh, Tabor
Donald F. Rodawig, Spirit Lake
M. L. Scheffel, Malvern
Verne L. Schlaser, Des Moines 9
John M. Schutter, Algona
Phil A. Scott, Spirit Lake
William A. Seidler, Jamaica
R. B. Sherman, Ackley
Clyde J. Smith, Gilmore City
Elmer M. Smith, Eagle Grove
Joseph H. Spearing, Harlan
Fred Sternagel, West Des Moines
H. E. Stroy, Osceola
J. H. Sunderbruch, Davenport
Frederick J. Swift, Jr., Maquoketa
Donald L. Trefz, Nashua
Clare A. Trueblood, Indianola
Thomas R. Viner, Leon
Dennis J. Walter, Des Moines
C. A. Waterbury, Waterloo
James E. Whitmire and W. D. Perrin, Sumner
Wilton J. Willett, Manchester
H. H. Wolf, Elgin

DEATHS

Dr. Robert Shoemaker Shane, 72, who practiced at Pilot Mound for 45 years, died on July 30 at the Boone County Hospital, where he had undergone a gallbladder operation five days earlier.

Dr. Pierre Sartor, 87, of Titonka, died on August 5 at the Good Samaritan Home in Algona. He had practiced in Kossuth County for 60 years, he was

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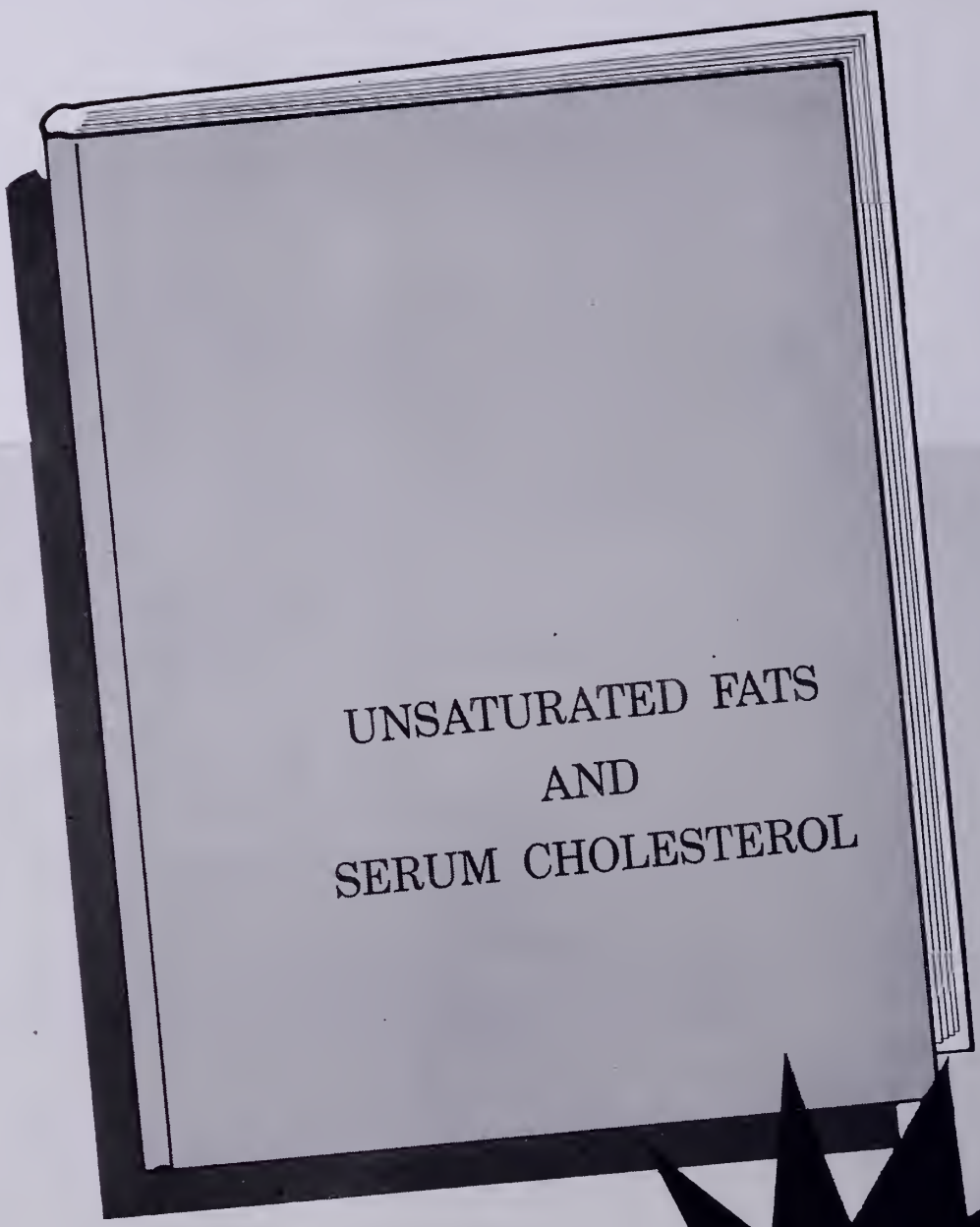
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SIDNEY L. SANDS, M.D., Psychiatrist
HOWARD V. TURNER, M.D., Psychiatrist
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This new book is the most up-to-date annotated bibliography on current research pertaining to:

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3. The nature of the active components in vegetable oils;
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As a result, MAZOLA CORN OIL is unusually well suited for helping achieve dietary adjustments commonly recommended by authorities on nutrition—that from one-third to one-half of the total fat in-take should be of the unsaturated type when serum cholesterol control is a problem.

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In the common cold, nasal allergies, sinusitis, and postnasal drip, one timed-release Triaminic tablet brings welcome relief of symptoms *in minutes*. Running noses stop, clogged noses open—and *stay* open for 6 to 8 hours. The patient can breathe again.

With *topical* decongestants, "unfortunately, the period of decongestion is often followed by a phase of secondary reaction during which the congestion may be equal to, if not greater than, the original condition. . . ."* The patient then must reapply the medication and the vicious cycle is repeated, resulting in local overtreatment, pathological changes in nasal mucosa, and frequently "nose drop addiction."

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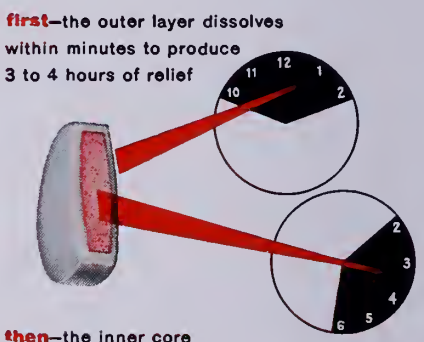
*Morrison, L. F.: Arch. Otolaryng. 59:48-53 (Jan.) 1954.

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Phenylpropanolamine hydrochloride	50 mg.
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Pyrilamine maleate	25 mg.

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a Life Member of the Iowa State Medical Society, and in 1953 he was chosen General Practitioner of the Year by the Society's House of Delegates.

Dr. Joseph Walter Sellards, 83, who practiced in Clarinda for 53 years, died there on August 3. He had ceased practice four years earlier and had been ill ever since breaking a hip during July, 1957. He was a Life Member of the Iowa State Medical Society.

Dr. Frank Spaulding Williams, 86, who practiced at Villisca from 1903 until his retirement several years ago, died at Rosary Hospital, in Corning, on July 26. He had been in poor health for some time. He was a Life Member of the Iowa State Medical Society.

SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 1:15 p.m.
"SUPERSTITION AND SCIENCE"

September 4 ..... Ephedrine
September 11 ..... Tonics and Home Remedies

"THE HEART OF AMERICA"

September 18 ..... Research
September 25 ..... What's a Heart Murmur

WSUI—Iowa City, Iowa
Monday at 2:30 p.m.
"HELP YOURSELF TO HEALTH"

September 1 ..... Nursing and Conclusion

"SUPERSTITION AND SCIENCE"

September 8 ..... Magic Touch
September 15 ..... Nutrition Fallacies
September 22 ..... Quinine
September 29 ..... Electricity and Magnetism

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

September 3 ..... Posture
September 10 ... Ear, Nose and Throat Problems
September 17 ..... Getting Along
September 24 .. Athletics and Physical Education

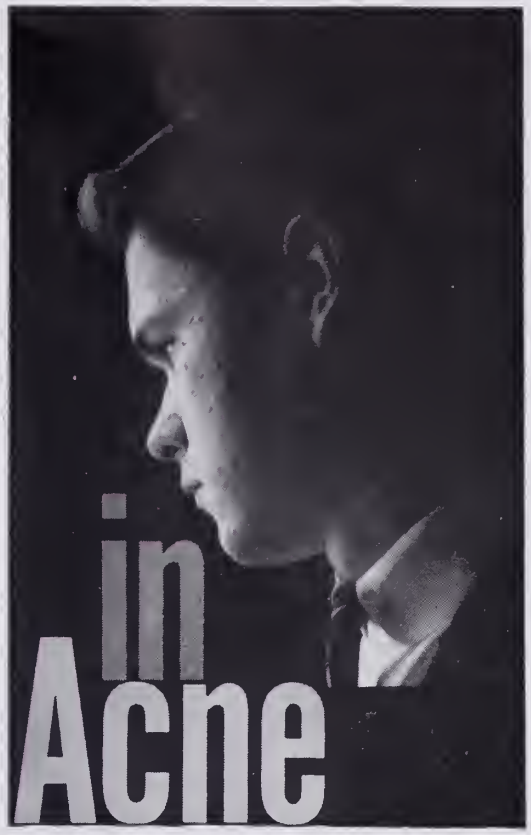
KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

September 7 ..... Rheumatic Fever
September 14 ..... Posture
September 21 ... Ear, Nose and Throat Problems
September 28 ..... Getting Along

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

September 7 .. Preventing Childhood Accidents
September 14 ..... Problems of Early Infancy
September 21 ..... Feeding Problems
September 28 ..... Mentally Retarded Child

The foregoing schedules are subject to change at the discretion of the station managers.



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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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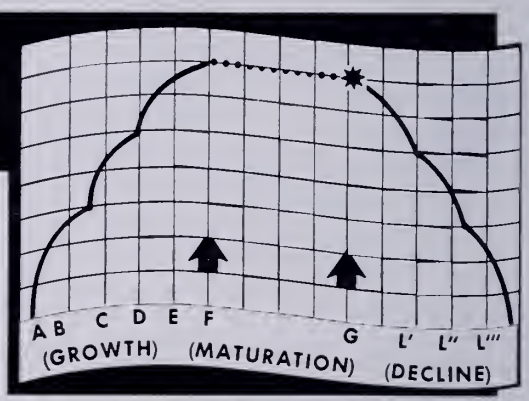
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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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Rutin	10 mg.	Niocinamide	20 mg.
Ascarbic Acid	30 mg.	Manganese	1 mg.
B-12	1 mcg.	Magnesium	5 mg.
Molybdenum	0.5 mg.	Iadine	0.15 mg.
Cobalt	0.1 mg.	Potassium	2 mg.
Copper	0.2 mg.	Zinc	1 mg.
Vitamin A	5,000 I.U.	Choline Bitartrate	40 mg.
Vitamin D	400 I.U.	Methianine	20 mg.
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ATT'N: J. D. Roberts

FROM: C. K. Howe, Sales

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(Additional Want Ads on page lxvii)

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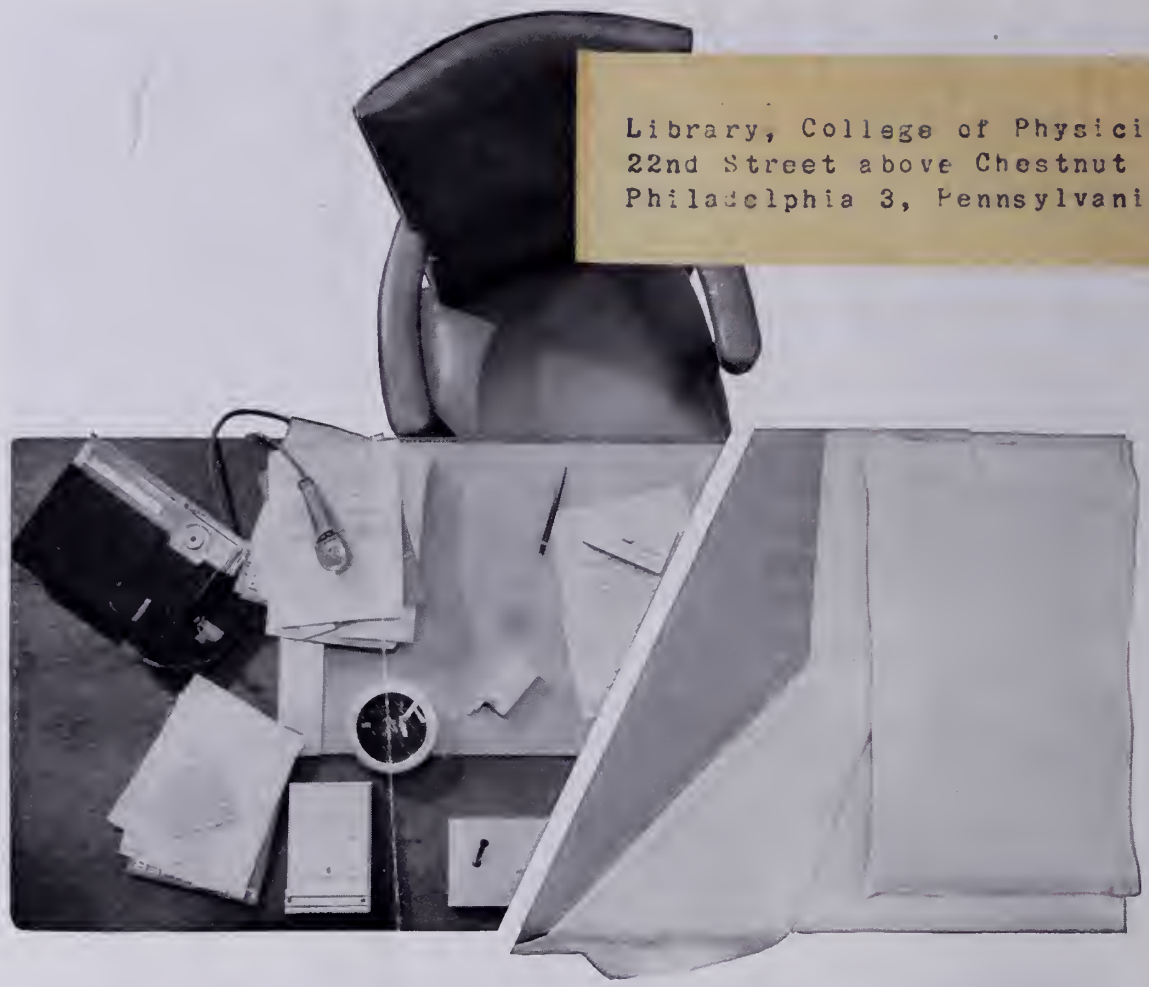


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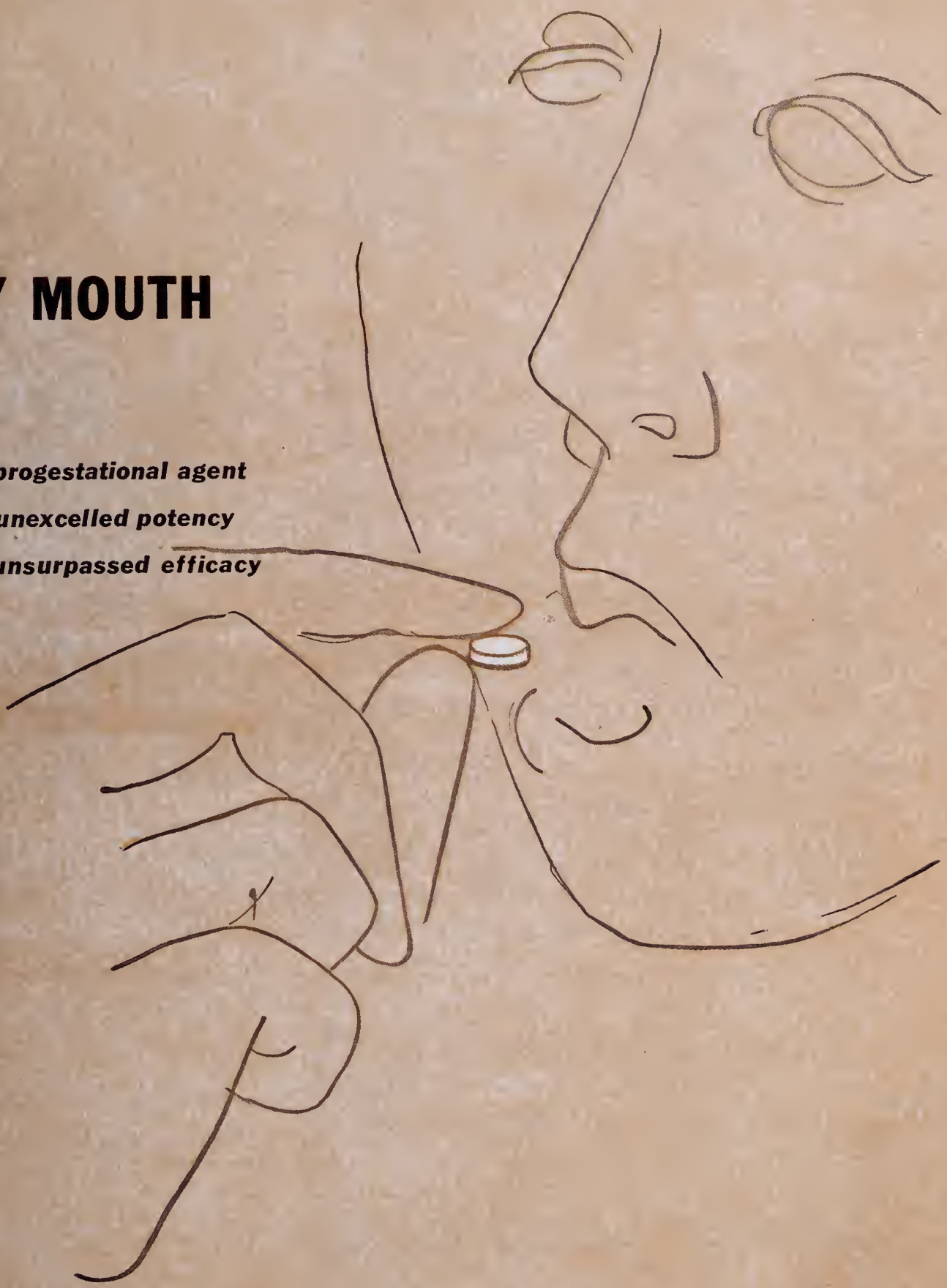
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why all the fuss over potassium?



Many physicians will recall when safe but potent organomercurials were first introduced. At the time there was considerable worry about possible potassium loss. Patients were instructed to take foods rich in this mineral, and not infrequently potassium supplements also were advised. After enough experience was gained, it became evident that only the exceptional case could lose enough potassium to be concerned about. And with oral organomercurial diuretics this was practically never a problem.

Why revive the subject now? Because clinical experience with nonmercurial diuretics indicates most of them have such a specific effect on potassium that with their use very real problems must be faced. Enough potassium loss can lead to digitalis toxicity or to a classical overt hypopotassemia. Since a fair percentage of cardiacs who receive diuretics are also digitalized, this excess potassium excretion is clinically serious. Clinical experience is still too limited with some nonmercurial diuretics to say just how often such loss will occur—but warnings already have been sounded by some clinical investigators as to the need for potassium supplementation.

Experience in many patients, for many years, demonstrates that potassium loss is never a problem when NEOHYDRIN® is the oral diuretic. And there is no refractoriness to this effective oral organomercurial.

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See
MD
Medical Newsmagazine,
March 1958 Issue,
Pages 76 – 77.



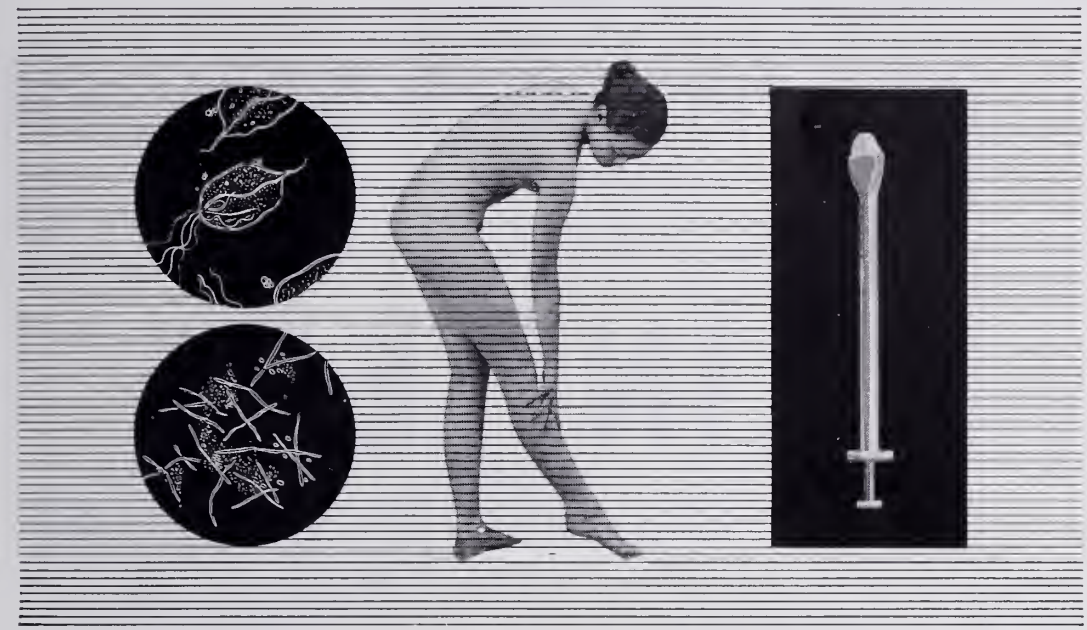
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Destroys Common Vaginal Pathogens; Rebuilds Normal Bacterial Barrier

Whenever a woman complains of vaginal discharge with pruritus, a trichomonal infection[1] must be suspected. Moniliasis, the second most frequent cause[2] of leukorrhea, often occurs[3] in conjunction with diabetes mellitus, pregnancy and estrogen or broad spectrum antibiotic therapy. Commonly used douches wash away normal acid secretions and protective Döderlein bacilli, thus tending to aggravate the problem.

Floraquin, containing Diodoquin® (diiodohydroxyquin, U.S.P.), eliminates infection and provides boric acid and sugar to restore the acidic pH which favors replacement of pathogens by normal Döderlein bacilli. The danger of recurrence is thus minimized.

Pitt reports[2] consistently good results after daily vaginal insufflation of Floraquin powder for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles.

Intravaginal Applicator for Improved Treatment of Vaginitis—

This smooth, unbreakable, plastic plunger device is designed for simplified insertion of Floraquin tablets by the patient; it places tablets in the fornices and thus assures coating of the entire vaginal mucosa as the tablets disintegrate. A Floraquin applicator is supplied with each box of 50 tablets.

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

1. Davis, C. H.: Trichomonas Vaginalis Infections: A Clinical and Experimental Study, J.A.M.A. *157*:126 (Jan. 8) 1955.

2. Pitt, M. B.: Leukorrhea, Causes and Management, J.M.A. Alabama *25*:182 (Feb.) 1956.

3. Lang, W. R.: Recent Advances in Vaginitis, Philadelphia Med. *51*:1494 (June 15) 1956.

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A SPECIFIC FOR GOUT

GOUT—THE DIAGNOSTIC PROBLEM

Clinical "curiosity" rather than clinical "instinct" is the key to accurate diagnosis of gout. Visible manifestations may not appear until late in the course of the disease. Moreover, the patient's description of the pain and the site of the pain may not differ markedly from other articular disorders.

THE FOLLOWING FINDINGS ARE HIGHLY INDICATIVE OF GOUT: (1) *Tophaceous deposits* resulting in irregular, asymmetrical deformity of joints; (2) *Elevated serum uric acid levels* (above 6 mg.%); (3) *Pain relief with colchicine.* When findings suggest gout, therapy with 'Benemid' should be started immediately.

BENEMID®—AN EFFECTIVE URICOSURIC AGENT

'Benemid' is firmly established as an *effective* and exceptionally ***safe*** uricosuric agent. 'Benemid' approximately doubles the excretion of uric acid; reduces serum uric acid levels toward normal; often prevents formation of new tophi, and gradually mobilizes existing uric acid deposits; minimizes incidence and severity of future attacks.

'Benemid' is of remarkably low toxicity—usually so low as to be clinically insignificant—even in patients who have been on uninterrupted therapy for almost a decade. The uricosuric effects of salicylates and 'Benemid' are mutually antagonistic and these compounds should not be used together.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

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STOPS MORNING SICKNESS, BUT..

Highest percentage of relief: In *Drugs of Choice*[1], clinical data on several therapies for nausea and vomiting of pregnancy is summarized. BONADOXIN afforded the highest percentage of relief in the "excellent" (79%) and "good" (16%) combined categories. The majority of cases were completely controlled in the first week of treatment, almost all on one tablet nightly.





Safe, too:
BONADOXIN doesn't "stop" the patient. It is free of side effects commonly associated with overpotent antinauseants. Goldsmith, reporting on 620 controlled cases, states that "toxicity and intolerance [are] zero."[2]

BONADOXIN

DOESN'T STOP THE PATIENT!

Now available in tablet or drop form.

Dosage: usually one tablet or one tsp. (5 cc.) at bedtime. Severe cases may require another dose on arising.

Supplied: tiny pink-and-blue tablets, bottles of 25 and 100. Bonadoxin Drops in 30 cc. dropper bottles.

Each tiny pink-and-blue Bonadoxin tablet contains:
Meclizine HCl (25 mg.)
...for symptomatic relief
Pyridoxine HCl (50 mg.)
...for metabolic action and prompt antinauseant effect.

Infant colic?
Non-narcotic Bonadoxin Drops stop colic in about 85% of cases.
Each cc. contains:
Meclizine Dihydrochloride. . .8.33 mg.
Pyridoxine Hydrochloride. . .16.67 mg.

Dosage:

under 6 months	0.5 cc.	2 or 3 times daily, on the tongue, in fruit juice or water
6 months to 2 years	1.5 to 2 cc.	
2 to 6 years	3 cc.	
adults and children over 6 years	1 teaspoon (5 cc.)	

Supplied:
fruit-flavored, clear green syrup in 30 cc. dropper bottles.

References: 1. Drugs of Choice 1958-1959, St. Louis, C. V. Mosby Company, 1958, p. 347.
2. Goldsmith, J. W.: Minnesota Med. *40*:99 (Feb.) 1957.

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strengthen bodies with needed protein
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Lysine-Vitamins

WITH IRON SYRUP

delicious cherry flavor— no unpleasant aftertaste

Average dosage is 1 teaspoonful daily. Available in bottles of 4 and 16 fl. oz.

Each teaspoonful (5 cc.) contains:

l-Lysine HCl	300 mg.
Vitamin B_{12} Crystalline	25 mcgm.
Thiamine HCl (B_1)	10 mg.
Pyridoxine HCl (B_6)	5 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Sorbitol	3.5 Gm.

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FOR LEG FATIGUE AND MILD VARICOSITIES

Recent clinical research demonstrated the excellent value of Supp-hose for leg fatigue, and mild disorders where heavy surgical stockings are not prescribed. The advantage of Supp-hose is that it looks just like any sheer nylon stocking, thus it overcomes one of the main objections of the patient concerned about her appearance.

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As you know, expectant mothers, housewives, working women, and women with mild varicosities all complain about discomfort of the extremities. Supp-hose eases this leg fatigue and gives gentle support all day long. Yet Supp-hose contains no rubber! Every stitch is fine nylon with a special twist that provides an elastic quality.

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Patented Supp-hose costs a woman just one-third what she usually pays for heavier surgical stockings. And wear tests indicate Supp-hose should give five times the wear of ordinary nylons. Supp-hose is available in proportioned sizes in beige, natural and white. At drug and department stores.

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Robaxin®

(Methocarbamol Robins, U.S. Pat. No. 2770649)

Robins



– the remarkably efficient skeletal muscle relaxant, unique in chemical formulation, and outstanding for sustained action and relative freedom from adverse side effects.

PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:166, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 93:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

Supply: Tablets (white, scored), 0.5 Gm., bottles of 50 and 500.

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Summary of four new published clinical studies:

Robaxin Beneficial in 95.6% of Cases of Acute Skeletal Muscle Spasm[1, 2, 5, 6]

CONDITION	NO. PATIENTS	RESPONSE			
STUDY 1[1]		"marked"	moderate	slight	none
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

THE JOURNAL
American Medical Association

"In the author's clinical experience, methocarbamol has afforded greater relief of muscle spasm and pain for a longer period of time without undesirable side effects or toxic reactions than any other commonly used relaxants . . ."[2]

THE JOURNAL
American Medical Association

"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

THE JOURNAL
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"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

Southern Medical Journal

"This study has demonstrated that methocarbamol (Robaxin) is a superior skeletal muscle relaxant in acute orthopedic conditions."[1]



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the control
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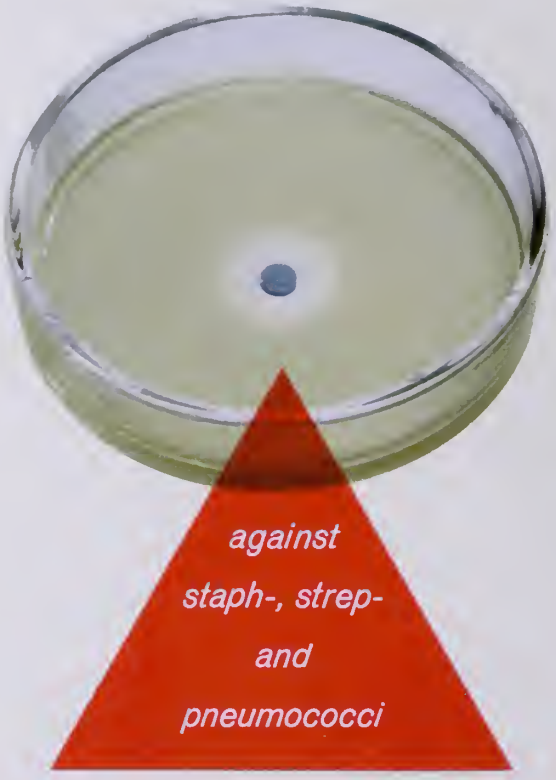
abbott's antibiotic triad



Erythrocin®

stearate

(Erythromycin Stearate, Abbott)



indications:

In infections caused by staphylococci, streptococci (including enterococci) and pneumococci. Also, against organisms that have become resistant to other antibiotics. ERYTHROCIN should be used where patients are allergic to penicillin or other antibacterials.

dosage:

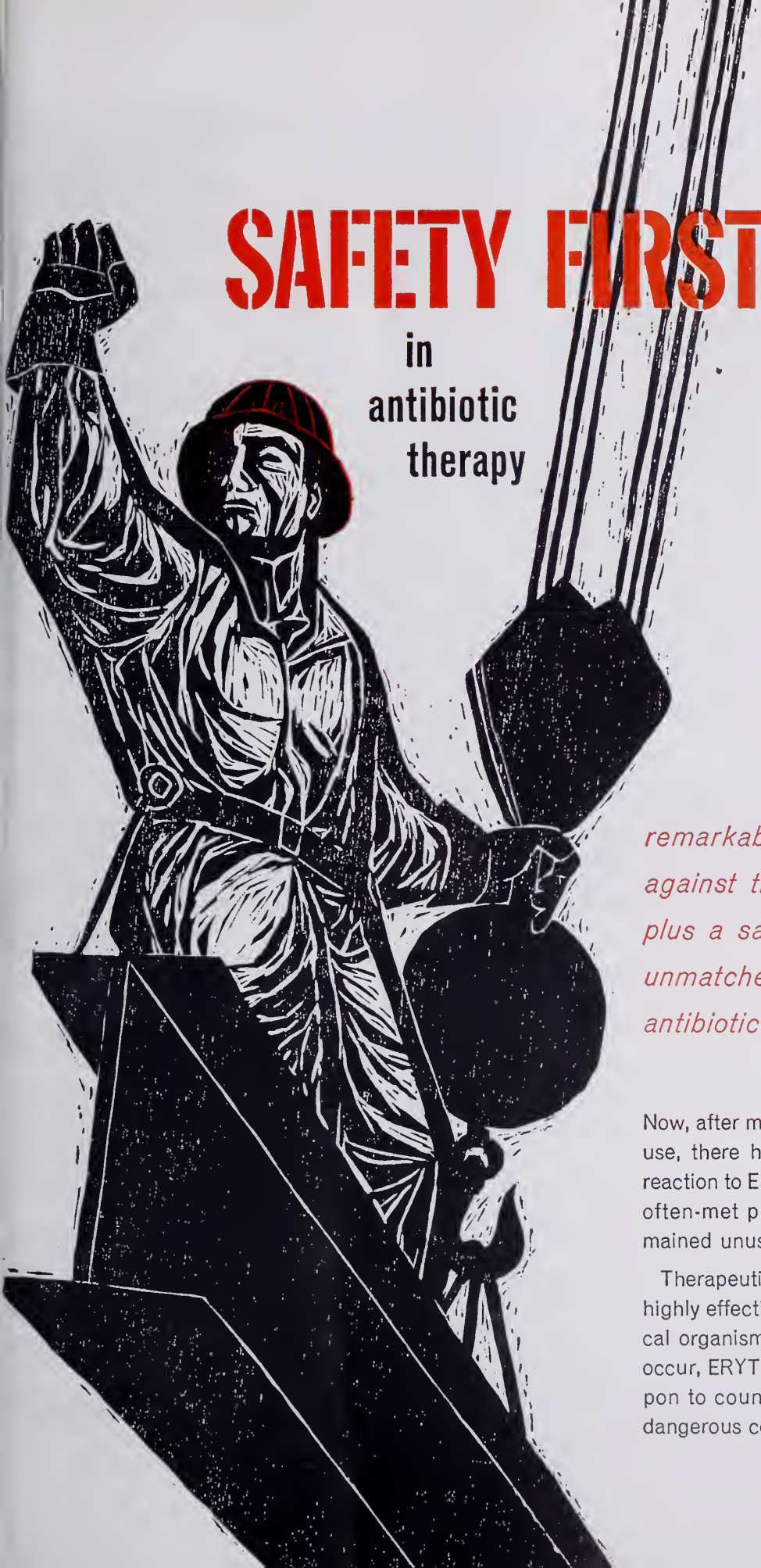
Usual adult dose is 250 mg. every six hours; for severe infections, usual dose is 500 mg. every six hours. Child's dose may be reduced in proportion to body weight.

supplied:

In bottles of 25 and 100 Filmtabs (representing 100 and 250 mg. of ERYTHROCIN activity). Also, in cinnamon-flavored oral suspension; 75-cc. bottles. Each 5-cc. teaspoonful represents 100 mg. of ERYTHROCIN activity.

® Filmtab — Film-sealed tablets, Abbott; pat. applied for.

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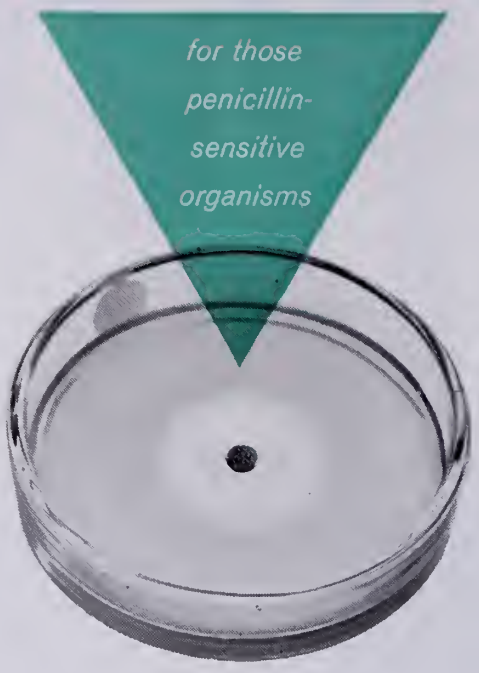
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remarkable effectiveness against the cocci– plus a safety record unmatched in systemic antibiotic therapy

Now, after more than six years of extensive use, there has not been a single serious reaction to ERYTHROCIN. Additionally, the often-met problem of resistance has remained unusually low with ERYTHROCIN.

Therapeutically, you'll find ERYTHROCIN highly effective against the majority of coccal organisms. Where severe viral attacks occur, ERYTHROCIN may well be the weapon to counteract those dangerous complications.

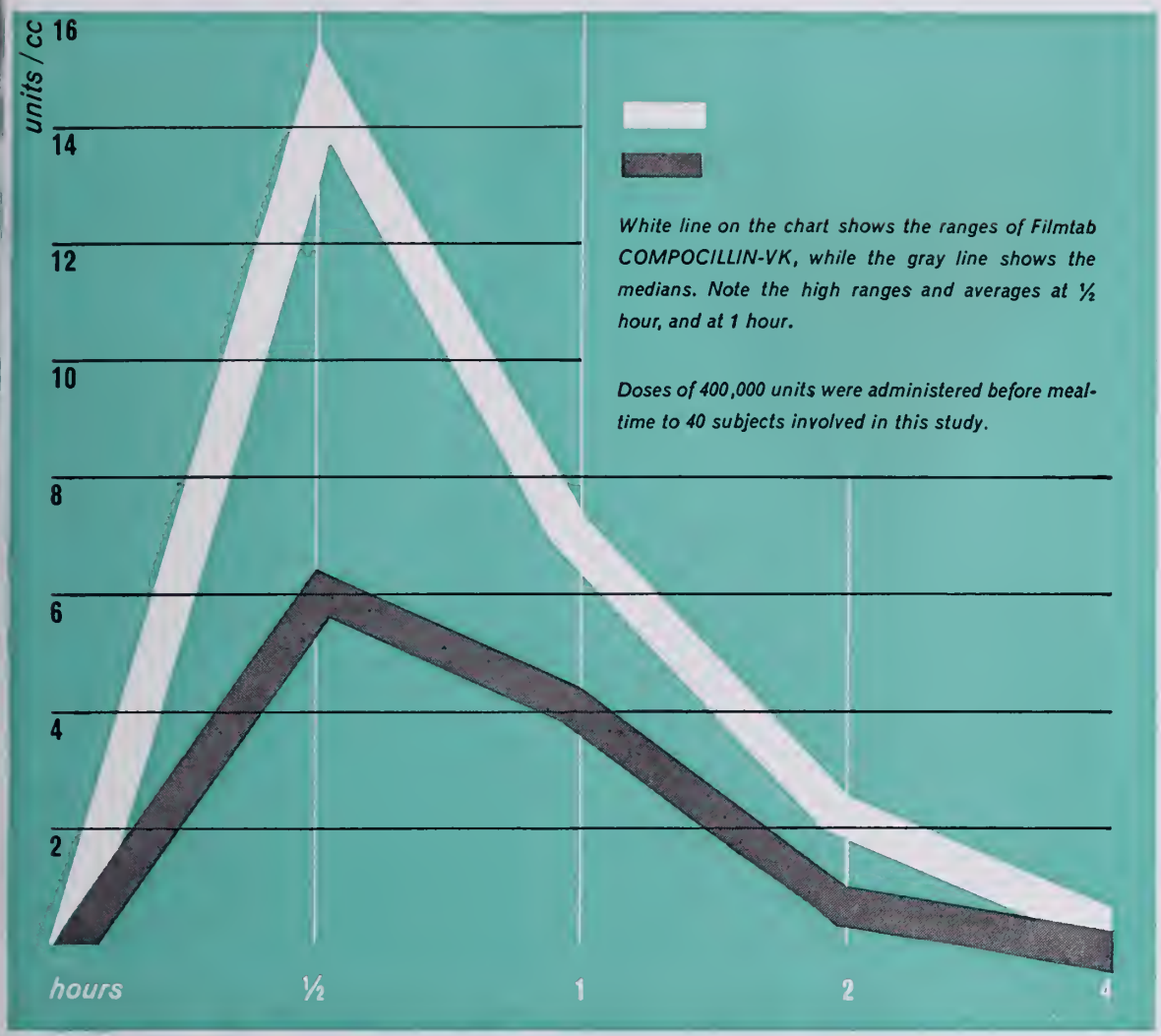
Abbott



the higher blood levels of COMPOCILLIN-VK®

Potassium
Penicillin V

809136



Now, in both Filmtab and Oral Solution, patients get high penicillin V blood levels with Compocillin-VK. Note the chart. Concentrations are three times higher than an equivalent dose of potassium penicillin G.

Compocillin-VK is indicated whenever you desire oral penicillin therapy. In severe infections, oral penicillin should be supplemented by parenteral therapy to obtain the maximum therapeutic response.

Indications:

Against all organisms sensitive to oral penicillin therapy. For prophylaxis and treatment of complications in viral conditions. And as a prophylaxis in rheumatic fever and rheumatic heart disease.

Dosage:

Depending on the severity of the infection, the usual adult dose is 125 to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage may be reduced in proportion to body weight.

Supplied:

In Filmtabs, representing 125 mg. (200,000 units) of potassium penicillin V, bottles of 50 and 100. In 250 mg. (400,000 units), bottles of 25 and 100.

For Oral Solution, Compocillin-VK comes in dry granules for easy reconstitution with water. Cherry-flavored, the granules come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of solution represents 125 mg. (200,000 units) of potassium penicillin V.

Compocillin-V® Oral Suspension (Ready-Mixed), Hydrabamine Penicillin V, Abbott, comes in 40-cc. and 80-cc. bottles. Each tasty, banana-flavored 5-cc. teaspoonful represents 180 mg. (300,000 units) of penicillin V. At all pharmacies. Abbott



indications:
Against a wide range of staphylococcal, streptococcal, pneumococcal and enterococcal infections. A drug of choice for treating serious infections caused by organisms that resist all other antibiotics.

dosage:
Administered intravenously. In pneumococcal, streptococcal and enterococcal infections, a dosage of 25 mg./Kg. will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. It is recommended that the daily dosages be divided into two or three equal parts at eight-or 12-hour intervals.

supplied:
In vials containing a sterile, lyophilized powder, representing 500 mg. of ristocetin A activity.

SPONTIN®

(RISTOCETIN, ABBOTT)

809137

rovides bactericidal action

gainst coccal infections

rovides successful short-term therapy

gainst endocarditis[1]

rovides clinical effectiveness against

esistant staphylococci and enterococci[2]

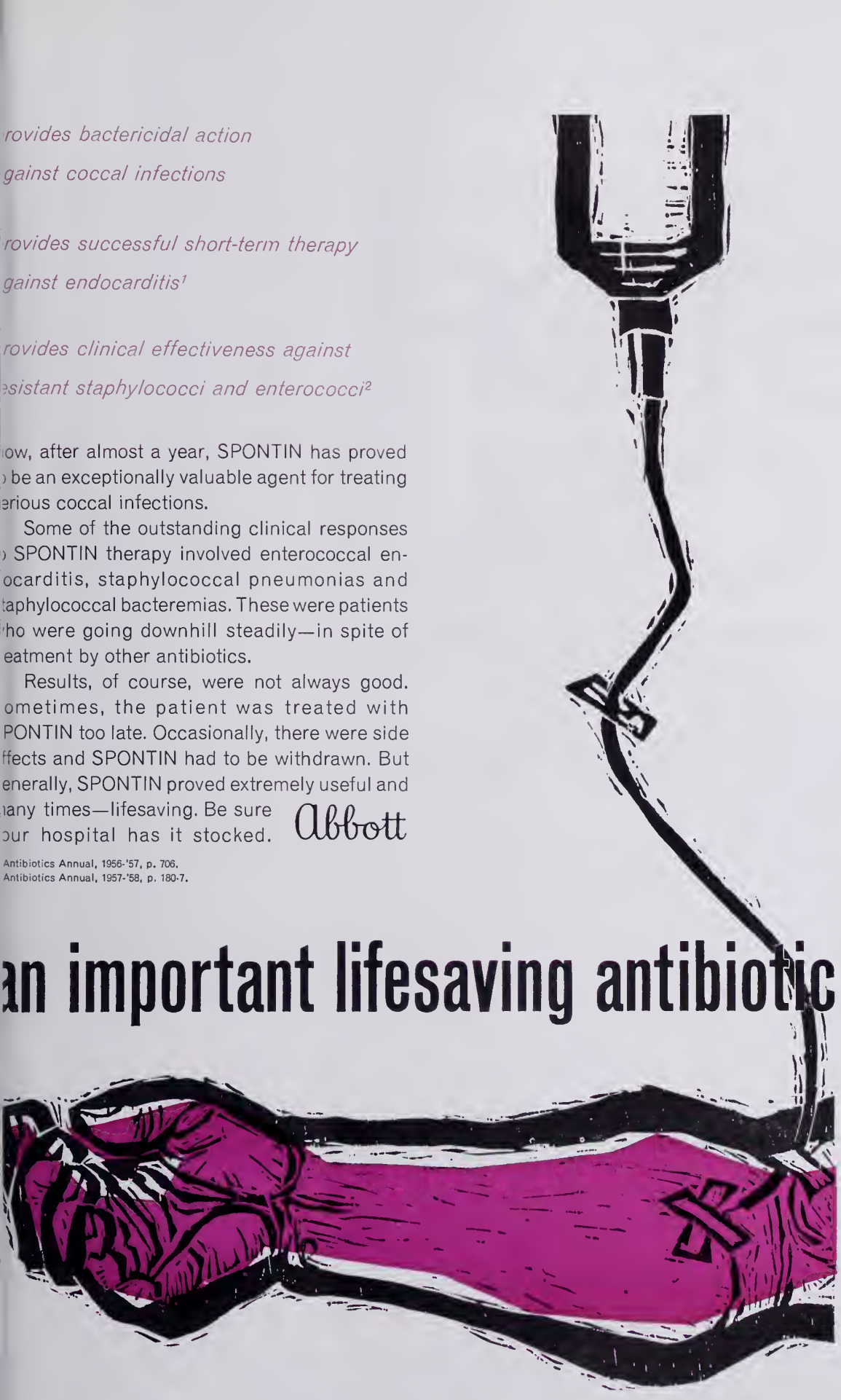
ow, after almost a year, SPONTIN has proved
be an exceptionally valuable agent for treating
erious coccal infections.

Some of the outstanding clinical responses
SPONTIN therapy involved enterococcal en-
ocarditis, staphylococcal pneumonias and
taphylococcal bacteremias. These were patients
ho were going downhill steadily—in spite of
eatment by other antibiotics.

Results, of course, were not always good.
ometimes, the patient was treated with
PONTIN too late. Occasionally, there were side
ffects and SPONTIN had to be withdrawn. But
enerally, SPONTIN proved extremely useful and
any times—lifesaving. Be sure
our hospital has it stocked.

Abbott

Antibiotics Annual, 1956-'57, p. 706.
Antibiotics Annual, 1957-'58, p. 180-7.



an important lifesaving antibiotic

now—an antibiotic troche that

STOPS COUGH TOO





The *cough control* provided by homarylamine (a non-narcotic antitussive) approximates that of codeine.

Three antibiotics (bacitracin, tyrothricin, neomycin) act in combination against a wide variety of pathogens—with little danger of side reactions.

The anesthetic-analgesic effect of benzocaine brings *soothing relief* to inflamed tissues of mouth and throat.

PENTAZETS now extend the therapeutic usefulness of convenient troche medication. Each pleasant-tasting PENTAZETS troche acts promptly against the most bothersome aspects of mouth and throat irritations.

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Pentazets®

antitussive—antibiotic-anesthetic—analgesic troches

MSD MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

Dosage: Three to 5 troches daily for 3 to 5 days.
Supplied: In vials of 12.
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When the bronchial tree has too much "bark"

make cough MORE PRODUCTIVE, LESS DESTRUCTIVE

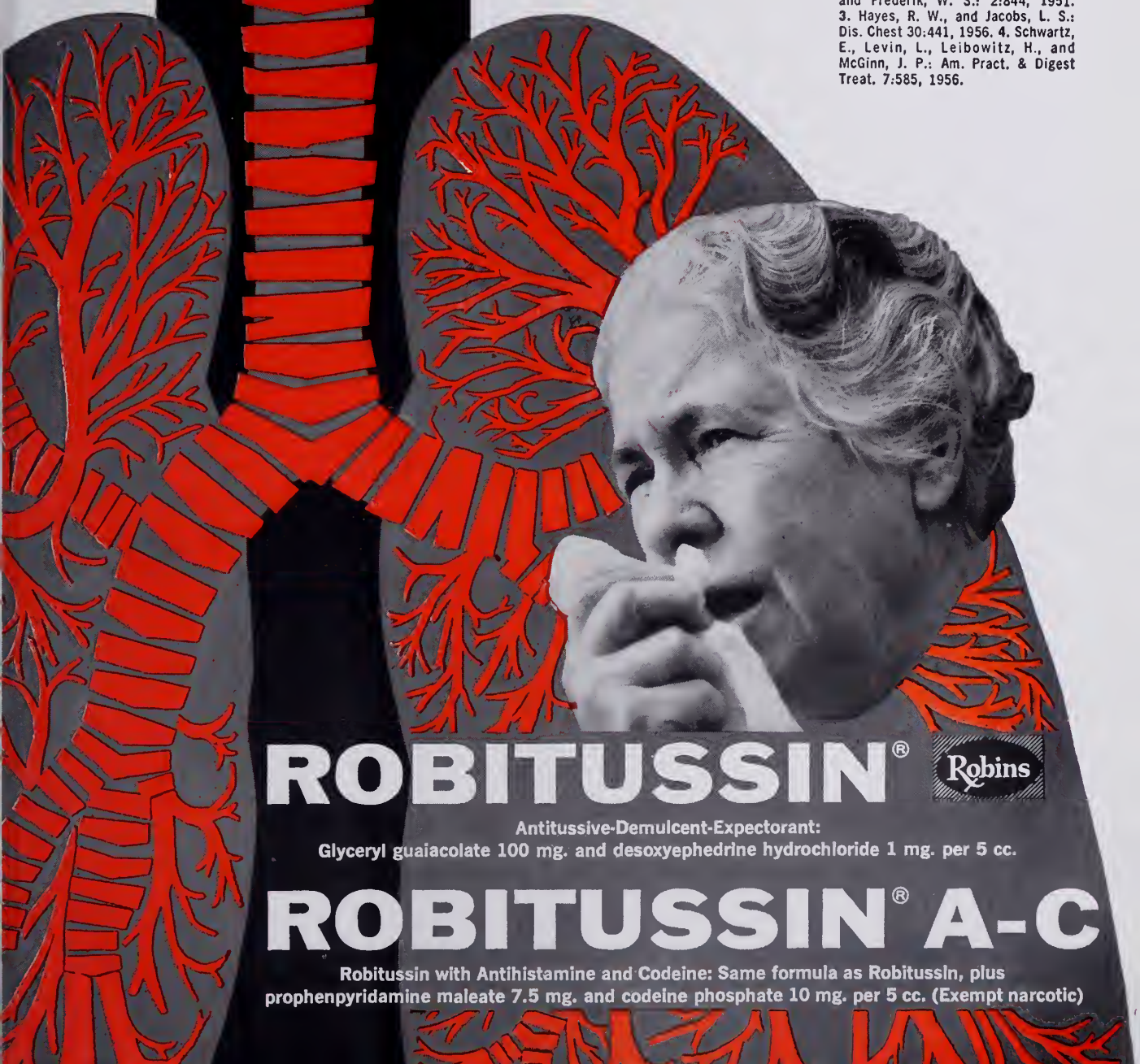
"Significantly superior"[2] cough therapy for "markedly" reducing the severity and frequency of coughing,[1] for increasing respiratory tract fluid,[1] for making sputum easier to raise,[3] and for relieving respiratory discomfort.[4]

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

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References:

1. Blanchard, K., and Ford, R. A.: Clin. Med. 3:961, 1956. 2. Cass, L. J., and Frederik, W. S.: 2:844, 1951. 3. Hayes, R. W., and Jacobs, L. S.: Dis. Chest 30:441, 1956. 4. Schwartz, E., Levin, L., Leibowitz, H., and McGinn, J. P.: Am. Pract. & Digest Treat. 7:585, 1956.



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Antitussive-Demulcent-Expectorant:
Glyceryl guaiacolate 100 mg. and desoxyephedrine hydrochloride 1 mg. per 5 cc.

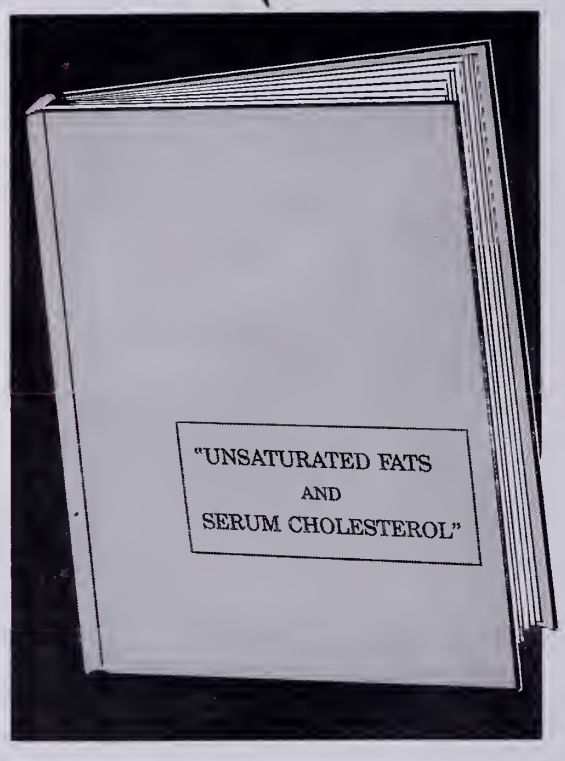
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Robitussin with Antihistamine and Codeine: Same formula as Robitussin, plus prophenpyridamine maleate 7.5 mg. and codeine phosphate 10 mg. per 5 cc. (Exempt narcotic)

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"Unsaturated Fats and Serum Cholesterol"

A review of the latest concepts and results of current research



This new book contains the most up-to-date bibliography of current research on: 1. The origin and behavior of cholesterol in the human body; 2. The effect of different dietary fats on serum cholesterol levels; 3. The nature of the active components in vegetable oils; and 4. Suggestions for practical diets.

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MAZOLA CORN OIL is a natural food, *and* cholesterol free, can easily be included as part of the every day meals... simply and without seriously disturbing the patient's usual eating habits... in salads, baking and other cooking processes.

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Provides approximately:

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Sitosterols	130.0 mg.
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Total unsaturated Fatty Acids—85%

TYPICAL AMOUNTS PER DIET

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essential ally of the doctor
in relieving anxiety, tension

Trilafon®

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an "agent of choice in treating tension and anxiety"[1]

- effective without somnolence
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(1) Marangoni, B. A.: Am. Pract. & Digest Treat. *8*:1959, 1957.

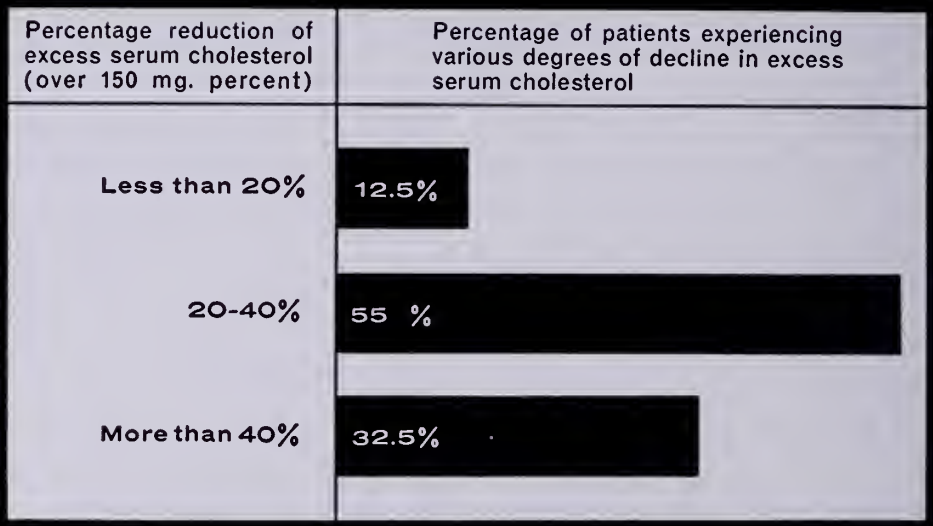
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ACP SHORT COURSE AT THE MAYO CLINIC

On November 3-7, the American College of Physicians will present a short course entitled "Selected Subjects in Internal Medicine" at the Mayo Clinic and Mayo Foundation, in Rochester, Minnesota. The maximal registration will be 150, and the fees will be $30 for ACP members and $60 for other physicians.

This course is planned to consider selected aspects of diseases of the endocrine glands, the gastrointestinal tract, the lungs, the blood, the cardiovascular system, etc. Physiologic and surgical aspects of these diseases will be considered, when appropriate.

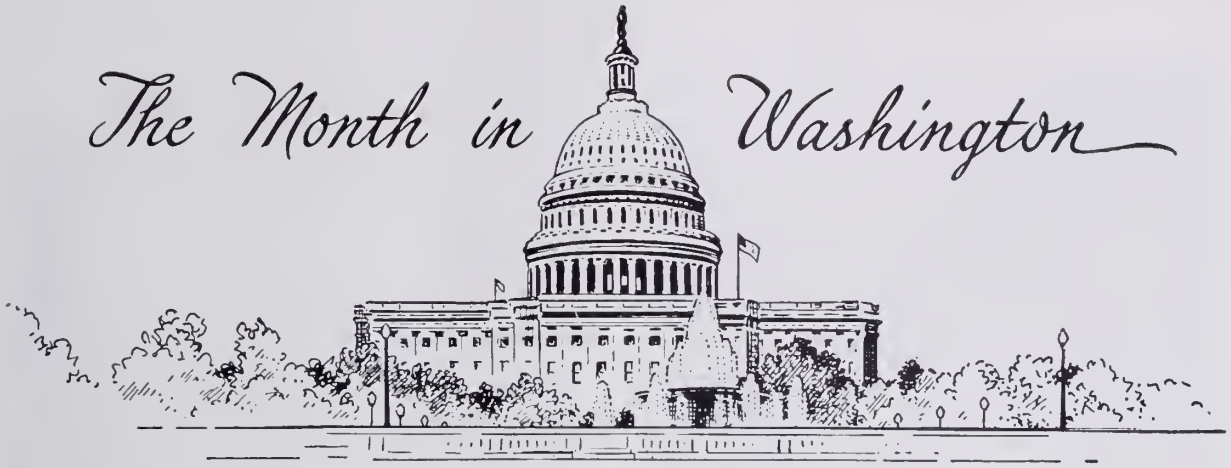
In addition to members of the Mayo and University of Minnesota staffs, the faculty will include Julian Ambrus, M.D., principal cancer research scientist for the New York State Department of Health, Buffalo; Arthur R. Colwell, Sr., M.D., chairman of medicine, Northwestern University Medical School; William H. Crosby, Jr., Colonel USA (MC), of the Department of Hematology, Walter Reed Army Institute of Research; Edward Freis, M.D., associate professor of medicine at Georgetown University; Irvine H. Page, M.D., director of research at the Cleveland Clinic Foundation; and Leslie Zieve, M.D., chief of the radioisotope service at the Minneapolis VA Hospital.

AMA NUTRITION MEETING IN MADISON

More than 500 physicians, nurses and dieticians will gather at the University of Wisconsin on October 16 for the fifth annual symposium sponsored by the AMA Council on Foods and Nutrition, a one-day meeting. The overall topic for the discussions will be "Factors Involved in Formation and Diseases of Bone." The co-sponsors will include the Wisconsin University Medical School, the Dane County (Wisconsin) Medical Society, and the Educational and Scientific Foundation of the State Medical Society of Wisconsin.

A highlight of the program will be a presentation by Willard Libby, Ph.D., of the Atomic Energy Commission, on atomic fallout and its effects on human bone. Harry S. Steenbock, Ph.D., and Hector F. DeLuca, Ph.D., of the U. of Wisconsin, will present a paper on "Vitamin D—History and Mode of Action." David W. Smith, M.D., of the Wisconsin pediatrics department, will discuss the clinical indications for the use of vitamin D preparations; and W. D. Armstrong, M.D., chairman of the Department of Physiological Chemistry at the University of Minnesota, will make a presentation entitled "Factors Influencing Tooth Formation and Structure." In addition, there will be two panel discussions.

The Month in Washington



Washington, D. C.—When the Congress that is elected in November goes to work next January 7, it will have before it a half-dozen important health-medical issues that the last Congress considered but didn't resolve. They include hospitalization under Social Security, tax-deferment on annuities, loans and mortgage guarantees for hospitals and nursing homes, aid to medical schools and amendment of the Veterans Administration's hospitalization procedures.

The issue of hospitalization under Social Security—the Forand Bill principle—will come into the spotlight shortly after the new session starts. Under instructions from the House Ways and Means Committee, the Department of Health, Education, and Welfare will complete a study on the problems of financing hospital care for the aged before next February 1. Some study of medical costs may also be included. A decision to move ahead with a study of medical care costs for the aged was reached by the Committee at the same time it excluded the Forand idea from the Social Security bill enacted during the summer. HEW was told to pay particular attention to the possibility of increasing OASI taxes, and using the money to purchase health insurance (nonprofit or commercial) to take effect upon a beneficiary's retirement or disability. This scheme would differ from the Forand plan in that health care would be financed through insurance, and not paid for directly by the federal government.

The Keogh Bill to allow doctors and other self-employed persons to defer income taxes on money put into retirement funds passed the House with very little opposition, but encountered difficulty in the Senate. It was defeated there in the closing days, and under unusual circumstances. Policy committees of both parties decided to oppose the bill as too costly, and the vote came in the course of a complicated legislative maneuver that would not serve as a test of whether individual senators favored or opposed the bill itself.

Keogh Bill sponsors, however, are encouraged that 32 senators resisted official party instructions and continued their support of the pension plan. The sponsors are confident that next year, under more favorable legislative circumstances, the measure will clear the Senate.

An effort was made late in the session to authorize grants to medical schools for the building and equipping of teaching as well as research facilities. The bill extending the research grants program also would have allowed use of the grants for "multi-purpose" structures (teaching and research) if emphasis were on research. However, for fear this change would hold up the simple extension bill, it was dropped off before the bill reached the House floor. Sponsors of aid to medical education will be back next year and will campaign on this issue alone.

Legislation to provide U. S. guarantees of nursing home mortgages, strongly supported by the American Medical Association, fell by the wayside in the House during the closing hours of the session, after having cleared the Senate with no trouble whatever. This also will be pushed next year, and may have a better chance of passage because of a growing emphasis on the need for solving the problems of the aged.

Far too late for passage, Chairman Olin Teague's House Veterans Affairs Committee reported out a bill that would make a number of changes in VA hospitalization procedures, liberalizing some and tightening others. The bill also would require the VA to open 5,000 beds over which Mr. Teague and VA Administrator Whittier have been squabbling for months, the latter maintaining that the beds aren't needed. That issue still is unresolved, inasmuch as the bill didn't pass.

Congress did roll out a sizable list of medical-health laws. It ordered the calling of a 1961 White House Conference on the Aging, it gave the Food and Drug Administration authority to enforce its pre-testing standards on foods to which chemicals and other substances have been added, it authorized loans as well as grants under the Hill-Burton program, it authorized grants for the country's schools of public health and for civil defense purposes, it raised military and VA physicians' pay, and it required labor and management health and welfare plans to make reports and open up their books for inspection by members.

The American Medical Association was able to persuade the Department of Defense and the administration to retain the post of assistant secretary (health and medical) in the reorganization



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of the Department. In legislation passed by Congress to bring about the reorganization, one of the assistant secretary posts would have been eliminated, and the medical assistant was marked for down-grading. However, Secretary McElory eventually announced that the position would be continued.

Even before Congress adjourned, it was clear that trouble was in sight for Medicare because of inadequate appropriations and instructions from Congress not to exceed the appropriation. To keep within the limitation, if possible, the Defense Department was channelling many thousands of service families to military facilities, and at the same time limiting the scope of care permitted in civilian facilities.

BAHAMAS MEDICAL CONFERENCES

Three medical conferences are to be held this winter at the British Colonial Hotel, Nassau: (1) November 28-December 18; (2) December 29-January 17 (surgical); and (3) January 18-31. American citizens do not need passports.

The Hotel is offering special rates to physicians and their families coming to these meetings, but only if reservations are made through Bahamas Conferences, P.O. Box 4037, Fort Lauderdale, Florida. The organizing physician is Dr. B. L. Frank, 23 East 79th Street, New York City 21, and copies of the program can be secured from him.

BLOOD MATCHING IN CORNEAL TRANSPLANTS

Drs. William H. Havener, George T. Stine and Mr. Larry L. Weiss, of the Ohio State University's Department of Ophthalmology, theorize that matching the blood of donors and recipients of corneas may solve one type of transplant failure.* A large proportion of corneal grafts become opaque during the first months after surgery, and some type of tissue intolerance has been suspected.

To test their theory, they asked eye surgeons to keep records of the blood types of donors and recipients and to submit them to the national committee of eye banks for study. In a pilot study, they themselves studied 21 cases. Of 17 in which donor and recipient were of compatible blood types, corneal opacity developed in only three cases; in the remaining four instances, where donor and recipient were of incompatible types, all of the corneas became opaque.

The authors already have started, in their own operations, to match type-A donors and recipients, leaving type-O corneas for use in persons with types O, AB and B blood.

*AMA ARCHIVES OF OPHTHALMOLOGY, September, 1958.



Personals



Drs. Richard F. Birge and **David Baridon, Jr.,** of Des Moines, have arranged to do the pathology of the Greene County Hospital, in Jefferson. Either one or both of them will visit the hospital weekly to supervise the laboratory there and to consult with local members of the medical staff, and in addition will do Greene County work at their laboratories in the city. Dr. Baridon, who only recently joined Dr. Birge, became a diplomate of the American Board of Pathology in pathologic anatomy and clinical pathology last summer.

Dr. Otto Senft, who has worked at the Kersten Clinic, in Fort Dodge, during the past six months, opened a general practice at Monticello late in August. For 2½ years after taking his M.D. degree at George Washington University, Washington, D.C., and interning at Garfield Hospital there, he served as flight surgeon attached to Eglin Air Force Base, in Florida, an air research center. Later, while on temporary duty in Germany and in Japan, he participated in a study of high-altitude nutrition and fatigue.

The physical plant at Iowa Methodist Hospital, Des Moines, is undergoing considerable enlargement. The convalescent wing fronting on Woodland Avenue is nearing completion. Construction has begun on the Anna M. Blank Memorial Building, which will adjoin the Raymond Blank Memorial Hospital for Children and will house the Des Moines Child Guidance Center. And a new arrangement has been set up that will assure doctors of parking their cars conveniently when they come to the Hospital. Electronic gates, which only the doctors can open, now guard gates to a section of the parking lot, except at hours when few physicians have occasion to come there.

At its meeting in the Sheraton-Montrose Hotel, which is to begin at 6:30 p.m. on October 9, the Linn County Medical Society will hear a lecture on endometriosis by **Dr. John E. Hobbs,** of the St. Louis Maternity Hospital, St. Louis, Missouri.

At the annual symposium on internal medicine presented at the Des Moines Art Center on September 20 by the medical staff of Iowa Methodist Hospital, **Dr. Eugene Braunwald,** chief of the section of cardiology at the National Institutes of Health, spoke on "Indicator-Dilution Curves in

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the Study of Patients With Heart Disease," **Dr. J. W. Eckstein,** assistant professor of internal medicine at S.U.I., made a presentation entitled "Newer Concepts in the Physiopathology of Shock," **Dr. James A. Campbell,** head of medicine at Presbyterian Hospital, Chicago, discussed "Physiopathology of the Circulation With Respect to Thyroid Malfunction," and **Dr. R. E. W. Wegria,** assistant professor of medicine at Columbia University College of Physicians and Surgeons, spoke on "The Regulation of the Coronary Circulation."

Dr. James E. Kelsey, of Des Moines, was the program chairman.

At a farewell reception given by the community of Kingsley on September 14 for **Drs. Harold and Dorothy Wolfson,** one of the speakers was **Dr. R. N. Larimer,** of Sioux City. After taking a vacation, the Wolfsons intend relocating in Houston, where Dr. Harold will be on the staff in physical medicine and rehabilitation at the VA Hospital. Dr. Harold has worked in Kingsley since 1932, and his wife has practiced with him during parts of that time.

Dr. Jean Arnold, a Coralville psychiatrist, and **Drs. Harold Morgan** and **J. Richard Utne,** of Mason City, were among the guest speakers at the state-wide meeting of medical assistants held at Clear Lake during August.

Dr. Dale Christensen, a 1957 graduate of the S.U.I. College of Medicine who recently finished his internship at a hospital in Rockford, Illinois, joined the McCrary-Rost Hospital staff in Lake City on September 15.

The $250,000 goal set for the drive to raise funds for the construction of a community hospital at Lake City has been oversubscribed, and with Hill-Burton money added, it will shortly be possible to replace the town's private hospital facilities.

In July and August, **Dr. Richard Phelps** and his family, of New Sharon, took a six-weeks vacation near Detroit Lakes, Minnesota.

The Quad City School of Medical Technology opened for classes at Mercy Hospital, Davenport, in September, as the successor to a school which **Dr. W. S. Pheteplace** had conducted there since 1949. Partners and faculty members of the new institution, with Dr. Pheteplace, are **Dr. N. T.**



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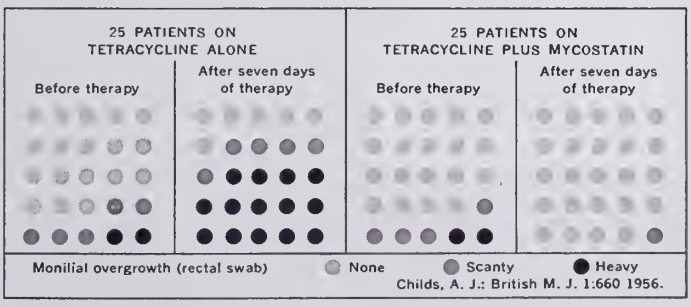
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Dr. Norman Elmer, a 1955 graduate of the S.U.I. College of Medicine who recently completed two years of Navy service in San Diego, has joined **Drs. J. E. Whitmire** and **William Perrin** in practice in Sumner.

Dr. James Webb, who comes from Roanoke, Virginia, has opened an office for the private practice of psychiatry in Ottumwa, and has been made chief of service at the new psychiatric wing of the Ottumwa Hospital.

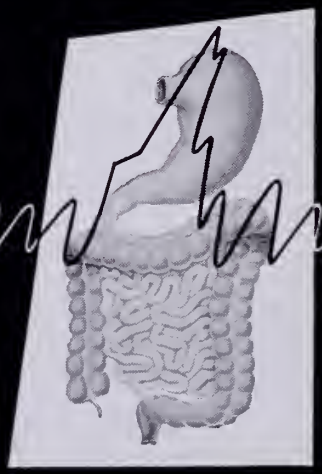
Dr. James M. Head has entered the practice of general cardiovascular and thoracic surgery in Des Moines with **Drs. Robert B. Stickler** and **Charles C. Edwards.** A medical graduate of the University of Wisconsin, he interned at Denver General Hospital and then returned to Madison for a residency and subsequently a fellowship in general surgery at his medical *alma mater.*

Dr. Ralph L. Hopp, a medical graduate of the University of Indiana who interned at St. Francis Hospital, Wichita, spent four years in a Kansas general practice, and recently completed a four-year residency in surgery at St. Joseph Mercy Hospital, Ann Arbor, Michigan, has joined the staff of the Cogley Clinic, in Council Bluffs.

Drs. R. C. McGeehon and **Lawrence R. Cornish,** of Indianola, were recently elected to membership in the Iowa Academy of General Practice.

The newest member of the medical staff at the Clarinda Mental Health Institute is **Dr. Lionel de Bernard,** who is working in the out-patient department and epilepsy center. He was educated in Panama, France and England; he interned at the Gorgas Hospital, in the Panama Canal Zone; and he received his residency training at the State Hospital in Williamsburg, Virginia. For the past year he has been a member of the staff at the Nebraska Psychiatric Institute, in Omaha.

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9, April 1956. 179. Friedman, A. P.: The treatment of chronic headache with mepro- Use of tranquilizers in the treatment of headache. Am. Pract. & Digest Treat. 8:94, .M.A. 163:1111, March 30, 1957. 182. Friedman, H. T. and Marmelzat, W. L.: Adverse robamate [Miltown] - a clinical study. Am. J. Psychiat. In press, 1957. 184. Gibbs, Relaxant effects of meprobamate in disabilities resulting from musculoskeletal and 453, July 1956. 186. Gillette, H. E.: The effect of meprobamate on cerebral palsy. ers and purpura hemorrhagica (Correspondence). J.A.M.A. 161:96, May 5, 1956. 188. An evaluation of meprobamate in the treatment of alcoholism. Ann. New York Acad. Sc. "Habit-forming" individuals (Queries and Minor Notes). J.A.M.A. 163:515, Feb. 9, e. Ohio M. J. 52:1306, Dec. 1956. 192. Hollister, L. E., Elkins, H., Hiler, E. C. ad. Sc. 67:789, May 9, 1957. 193. Hollister, L. E., Shannard, A. N. and Drake, C. F.: 194. Holoubek, J. E., Thomas, O. C. and Sc[illegible], J.: Toxic reaction to 2-methyl- 95. Karl[illegible] A[illegible] der Meprobamat[illegible] (Correspondence). Canad. robamate (Miltown) in surgery of eye, ear, nose and throat. Eye, Ear, Nose & Throat. tranquilizer, meprobamate -- its use for pain associated with cancer, preliminary obamate (Correspondence). J.A.M.A. 161:644, June 16, 1956. 19[illegible] Kugelmass, I. N.: . P. Clini[illegible] 195[illegible] Lemere, F.: Habit-forming properties of 56. 206. Lemere, F.: Promazine (Sparine) in the treatment of psychiatric disorders. A. Arch. D[illegible] 7:437, March 1957. [illegible] Lemere, C. F.: Un- LeVan, P. [illegible] Wright, E. F.: Use of tranquilizers in diseases of the skin -- A Clinical evaluation of meprobamate in disturbed and prepsychotic children. Ann. New .: Ineffectiveness of Dianox in the treatment of childhood epilepsy. Pediatrics 17: in treatment. Southwestern Med. 37:428, July 1956. 213. McG[illegible] R[illegible] Drug reaction town in the treatment of chronically ill psy[illegible]c c[illegible]-pati[illegible] Pennsylvania M. J. ychiatric c[illegible]e. [illegible] 198[illegible] April 19[illegible] 21[illegible] inos[illegible] M. G., Boyd, blication, [illegible] 117 Oc[illegible] A. Tre[illegible]ment [illegible] ri[illegible]ty [illegible]s w[illegible] meprobamate Osinski, W. [illegible] treatment of anxiety states with meprobamate. Ann. New York Acad. spondence). J.A.M.A. 163:480, Feb. 9, 1957. 220. Pelner, L.: Meprobamate (Correspond- of six ataraxics in neuropsychiatric patients. Read at the American Psychosomatic robamate, tranquilizing drug with muscle relaxant properties, in psychotic cases, in 1957, pp. 25-[illegible] 223. [illegible] M. [illegible] comparative study of ataraxics in on, V. M.: A two-year comparative study of ataraxics in neuropsychiatric patients. J. n (meprobamate) with psychotic patients. Am. J. Psychiat. 114:257, Sept. 1957. 226. 7. 227. Pennington, V. W.: Addition to [illegible] mentioned (Correspondence). North- in convulsive and related disorders. [illegible] Pevey, J. with phenothiazine derivatives. [illegible] Pharmacol. & iltown) for the treatment of [illegible] Trans. & Digest Treat. 7:1573, tion. [illegible] [illegible] [illegible]

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Dr. and Mrs. Herbert C. Merillat entertained 130 guests at a reception in their home on September 6, in honor of **Dr. Paul T. Cash** and his bride. Drs. Merillat and Cash both practice psychiatry in Des Moines.

At a meeting of the Ohio chapter of the American College of Surgeons held on September 5 and 6 in Dayton, **Dr. Richard L. Miller,** of Waterloo, participated in a panel discussion on "Indications for Hysterectomy."

The Polk County Medical Society held its Fall Party at the Des Moines Golf and Country Club on September 19. The decorations and program followed an "Old New Orleans" motif.

Dr. Marion E. Alberts, a Des Moines pediatrician, recently attended a five-day training course in the handling of mass casualties at the Brooke Army Medical Center, in Texas. He is the chairman of his county medical society's civil defense committee and a consultant to the ISMS Committee on National Emergency Medical Service.

Dr. Dwight C. Wirtz, a Des Moines orthopedic surgeon, has been named for the seventh year as state chairman of fund raising for the Sister Kenny Foundation.

Dr. Joe M. Standefer, of Des Moines, was made pediatrics consultant to the Iowa State Department of Health on July 1.

At a meeting of the Scott County Medical Society to be held at the Outing Club, in Davenport, at 7:30 p.m. on October 7, **Dr. A. M. Wolf,** executive director of the Michael Reese Foundation, Chicago, will speak on "Blood Transfusions: Uses and Problems." Dr. Wolf is a leading authority on the subject, and has been very active in the American Blood Bank Association. Doctors in eastern Iowa are cordially invited to attend.

Dr. Mary A. Hatfield, who has been a staff member of the State Tuberculosis Sanatorium at Oakdale, has accepted a position at the Drake University Student Health Center, in Des Moines.

At the September 8 meeting of the Dubuque County Medical Society, the program was provided by the staff of the Crippled Children's Clinic Service.

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ORAL SUSPENSION
(orange-flavored)
125 mg. per tsp. (5 cc.), 2 oz. bottle

NEW! PEDIATRIC DROPS
(orange-flavored) 5 mg. per drop
calibrated dropper, 10 cc. bottle

COSA-TETRASTATIN*

glucosamine potentiated tetracycline with nystatin

antibacterial plus added protection against monilial superinfection

CAPSULES (black and pink) 250 mg. Cosa-Tetracyn, (with 250.000 u. nystatin)

ORAL SUSPENSION 125 mg. per tsp. (5 cc.) Cosa-Tetracyn, (with 125,000 u. nystatin), 2 oz. bottle

COSA-TETRACYDIN*

glucosamine potentiated tetracycline-analgesic-antihistamine compound

For relief of symptoms and malaise of the common cold and prevention of secondary complications

CAPSULES (black and orange) Ea. capsule contains: Cosa-Tetracyn 125 mg. • phenacetin 120 mg. • caffeine 30 mg. • salicylamide 150 mg. • buclizine HCl 15 mg.

REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and Leukemia. Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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And now in practice

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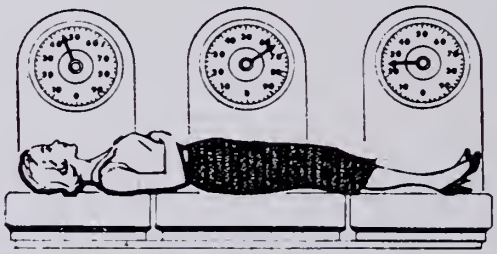
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Dr. D. W. Dohnalek, who since 1956 has been serving a residency in Ft. Logan, Colorado, intends to open a practice in Harlan on January 15. He has previously practiced in West Union, Lansing and Waukon.

At the Cleveland meeting of the Interstate Postgraduate Medical Association, November 10-13, **Dr. Donald C. Conzett,** of Dubuque, will serve as speaker of the assembly. He and **Drs. R. N. Larimer,** of Sioux City, and **Ben T. Whitaker,** of Boone, are members of the organization's board of trustees.

As parts of the scientific program, **Dr. John A. Gius,** professor of surgery at S.U.I., will lecture on "Varicose Veins," **Dr. William C. Keettel,** professor of obstetrics and gynecology at S.U.I., will speak on "Functional Uterine Bleeding," **Dr. Carroll B. Larson,** head of the S.U.I. Department of Orthopedic Surgery, will discuss "Low Back Pain," and **Dr. Adolph L. Sahs,** professor of neurology at S.U.I., will lecture on "Radiculitis: Cervical and Lumbar."

Dr. P. A. Nierling, of Cresco, is one of a score or more of doctors who will receive awards for having attended 10 of the group's annual meetings since 1940.

A family reunion on August 13 marked the completion of 45 years of medicine for **Dr. C L. Updegraff, Sr.,** of Boone. It also was a birthday party, not only for Dr. Updegraff, Sr., but also for his sons, **Dr. C. L., Jr.,** who has remained in Boone, **Dr. Robert,** of Des Moines, and **Dr. William,** of Poughkeepsie, New York, all of whom were born in August. A fourth of his sons, **Dr. Thomas Updegraff,** of Waterloo, was present, but a fifth, **Dr. Edgar,** of Tucson, couldn't attend. He talked with the group by telephone.

Dr. D. K. Haggar, who first practiced with the late **Dr. F. F. Null** and subsequently, until May 1 of this year, with **Dr. E. M. Eneboe,** at Hawarden, left there on August 14 to join the Medical Arts Clinic in Watertown, South Dakota.

Dr. Russell Meyers, head of neurosurgery at S.U.I., addressed the first International Conference on Semantics in Mexico City late in August on the topic "Evolution From a Pre-Scientific to a Scientific Culture." He is president of the organization, and recently was a member of the faculty at a short course that it offers annually at Bard College, in New York City.

Dr. Ralph M. Brugger, an internist, has joined the staff of the McFarland Clinic, in Ames. He is a 1952 graduate of the University of Pennsylvania School of Medicine, he served a two-year tour of

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meprobamate (Miltown®) capsules



q. 12 h.

Two capsules on arising **last all day**
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relieve nervous tension on a *sustained* basis, without between-dose interruption

"The administration of meprobamate in sustained action form [Meprospan] produced a more uniform and sustained action ... these capsules offer effectiveness at reduced dosage."[2]

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1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.
2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

Literature and samples on request

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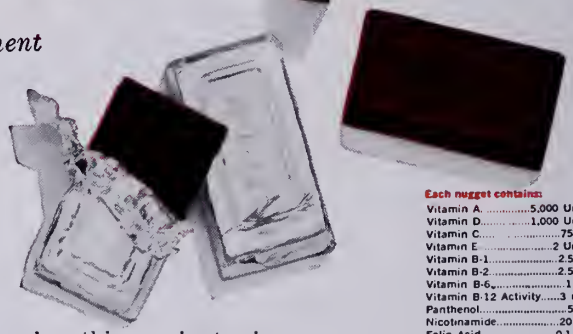
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Calcium Carbonate	125 mg.
Boron	0.1 mg.
Cobalt	0.1 mg.
Fluorine	0.1 mg.
Iodine	0.2 mg.
Magnesium	3.0 mg.
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Potassium	2.5 mg.

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duty with the Air Force immediately after finishing his internship, and since then he has been a resident at the Cleveland Clinic.

Dr. Melvin G. Bourne, with his family, left Algona on September 11 for a five-week European trip. He planned to attend the international cardiology meeting in Brussels.

Dr. Harold Brereton, of Emmetsburg, had charge of arrangements for a meeting on health insurance sponsored by the Iowa State Medical Society and held at the Emmetsburg Country Club on September 11. It was attended by physicians from throughout the Third Councilor District, which consists of Clay, Dickinson, Emmet, Kossuth, Palo Alto and Pocahontas Counties.

At the request of the Pottawattamie County Medical Society, the Council Bluffs Board of Education has arranged with the Iowa High School Athletic Insurance Company to double the former coverage provided youths who participate in sports there. The Society said parents had complained to physicians that in past years the benefits have recompensed them for too small a share of hospital and medical care bills.

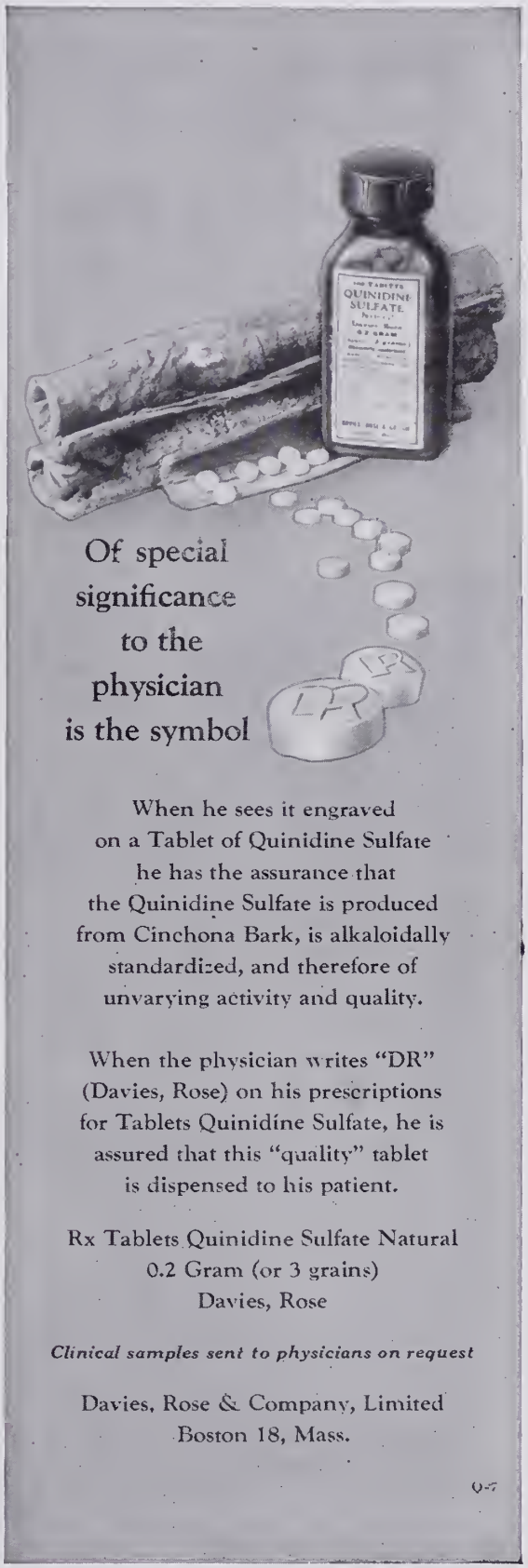
Under the new plan, at Abraham Lincoln High School the Athletic Fund will pay $8.00 of the premium, and the student will pay $4.75; at the Thomas Jefferson High School, the Athletic Fund will pay $2.75, and the student will pay $10.00. In this connection, it should be mentioned that at Thomas Jefferson the Fund provides players with athletic shoes.

On September 1, **Dr. Maurice P. Margules** moved his office from 547 W. Washington to an eight-room house which he purchased recently at 311 Willow Avenue, in Council Bluffs.

Following one of the weekly golf tournaments at the Ottumwa Country Club, on August 20, the prizes were nearly monopolized by physicians: **Drs. Kenneth Lister, Wilson Wolfe** and **Robert Meyers.**

Dr. Vernon Blaha, who has practiced since 1948 in Marshalltown, closed his office there in mid-August and left for Grayling, Michigan, where he will do general surgery with the Keyport Clinic.

The Des Moines County Medical Society has endorsed a fund-raising campaign intended to finance transforming St. Francis Hospital, Burlington, into a continuation-care center. Earlier, physicians there had opposed the change on the grounds that



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SURGERY—Surgical Technic, Two Weeks, October 27, November 10
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Surgery of Hernia, Three Days, November 6
General Surgery, Two Weeks, November 10; One Week, October 27
Fractures & Traumatic Surgery, Two Weeks, December 1
American Board Review Course, Two Weeks, November 10
Blood Vessel Surgery, One Week, October 20

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, October 13
Vaginal Approach to Pelvic Surgery, One Week, November 17
General & Surgical Obstetrics, Two Weeks, October 27

MEDICINE—General Review Course, Two Weeks, October 20
Electrocardiography, Two-Week Basic Course, October 6
Gastroscopy & Gastroenterology, Two Weeks, November 3

DERMATOLOGY—Clinical & Didactic Course Two Weeks, November 3

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RADIOLOGY—Diagnostic X-Ray, Two Weeks, December 1

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the community shouldn't reduce the number of its general hospital beds.

At a meeting in Charles City early in September, **Dr. E. J. Goen,** president of the Floyd County Medical Society, reported that enough qualified voters had signed petitions so as to require a proposal for the issuance of bonds for the construction of a county hospital to appear on the general election ballot in November.

Though it had been suggested that Charles City transfer ownership of its Cedar Valley Hospital to Floyd County, the state attorney general has ruled that it can't make such a gift. The mayor of the town estimated that $700,000 of municipal funds were invested in it. **Dr. J. B. Miner,** of Charles City, pointed out that in order to provide up-to-date care, the institution would need thorough and costly remodeling and reequiping, and **Mr. L. W. Coe,** of Des Moines, executive secretary of of the Iowa Hospital Association, suggested that if a new structure can be built, the old one might be used to care for geriatric patients.

Dr. R. F. Moschell, a graduate of the Johns Hopkins School of Medicine who served a residency in Rochester, New York, has joined the Park Clinic, Mason City. He is a board-qualified specialist in orthopedic surgery.

The newly-organized Iowa Committee of the National Society for the Prevention of Blindness is to start a pilot screening program for pre-school children in Des Moines, shortly. **Dr. A. H. Downing,** a Des Moines ophthalmologist, is chairman of the group's professional advisory committee, and the tests will be administered by 30 members of the Polk County Medical Auxiliary and alumnae of Delta Gamma, a college social sorority. Next year's program in the city will be all-inclusive, and eventually the survey will be made state-wide.

At the meeting of the Woodbury County Medical Society, in the Sheraton-Martin Hotel, Sioux City, on September 18, **Dr. James C. Broadbent,** of the Mayo Clinic, lectured on "Use of the Artificial Kidney." Also, there was a showing of a moving picture on hemodialysis, sponsored by Baxter Laboratories.

At the October 1 meeting of the Johnson County Medical Society, **Richard Tjalma, D.V.M.,** an assistant professor in the Institute of Agricultural Medicine of the S.U.I. Department of Hygiene and Preventive Medicine, will speak on "Animal Diseases Transmissable to Man."

The physicians who recently moved into the new medical office buildings called "Doctors' Park," at

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

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Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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FORD, R. V., Rochelle, J.B.III, Handley, C. A., Moyer, J. H. and Spurr, C. L.: J.A.M.A. **166**:129, Jan. 11, 1958.

". . . in premenstrual edema, convenience of therapy points to the selection of chlorothiazide, since it is both potent and free from adverse electrolyte actions." In the vast majority of patients, 'DIURIL' relieves or prevents the fluid "build-up" of the premenstrual syndrome. The onset of relief often occurs within two hours following convenient, oral, once-a-day dosage. 'DIURIL' is well tolerated, does not interfere with hormonal balance and is continuously effective—even on continued daily administration.

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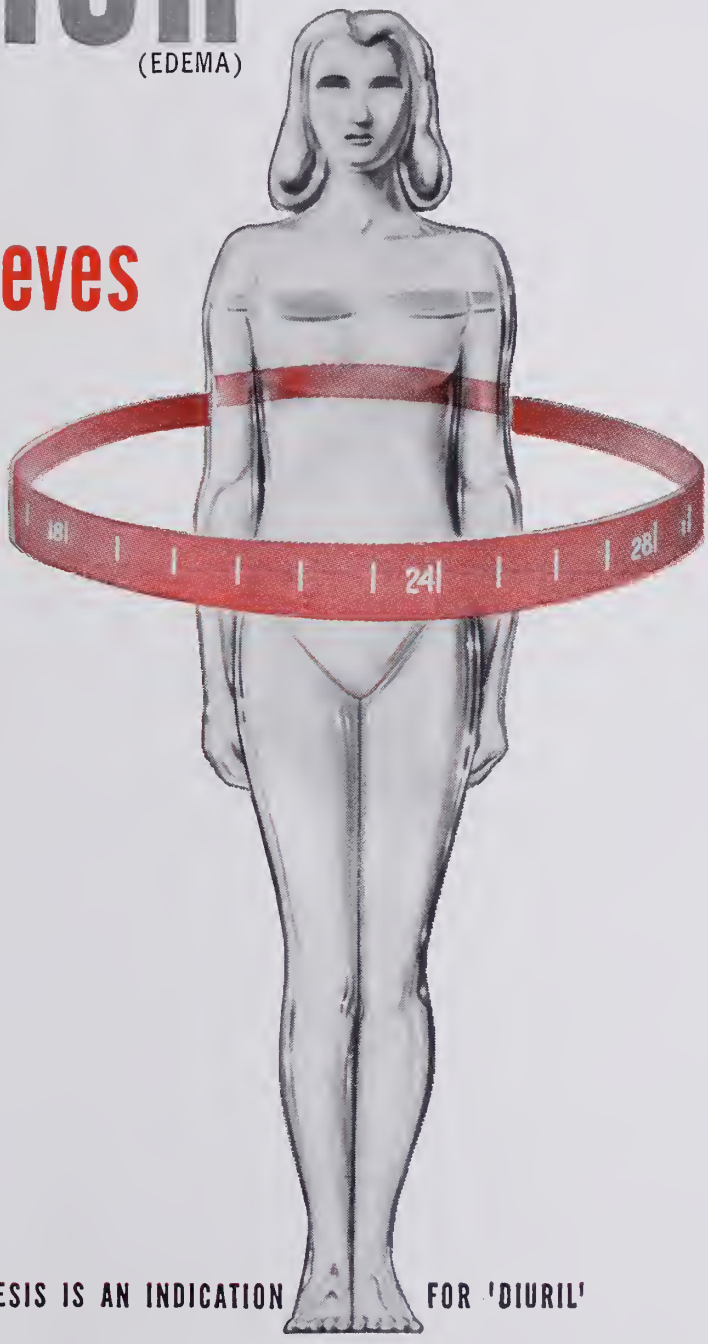
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Fourteenth and Woodland Avenue, in Des Moines, held open house on Sunday, September 21. They are **Drs. R. B. Stickler, C. C. Edwards** and **J. M. Head**, general and cardiovascular surgeons; **Drs. D. N. Gibson** and **J. H. Kelly**, orthopedic surgeons; **Dr. R. A. Hayne**, a neurosurgeon; **Dr. P. T. Cash**, a psychiatrist; **Drs. T. D. Throckmorton, W. H. Myerly, H. E. Wichern, R. C. Schropp** and **A. N. Smith**, general and thoracic surgeons; **Dr. T. B. Throckmorton**, a psychiatrist; and **Dr. J. E. Gustafson, J. Spevak** and **E. R. Duffie**, pediatricians. A dentist, **Dr. J. L. Sullivan**, is one of the tenants and, of course, was one of the hosts at the open house.

On Saturday night, September 13, a car belonging to **Dr. R. V. Daut**, a Davenport urologist, was stolen from the garage at the rear of his home, and with the car he lost a medical bag containing instruments valued at $2,000. The thieves "jumped" the wiring to start the motor.

Davenport has been experiencing an epidemic of auto thefts by "joy riders" who abandon cars within a few hours after stealing them, but Dr. Daut's car wasn't located immediately.

Dr. Madelene M. Donnelly, director of the Division of Maternal and Child Health of the Iowa Department of Health, was guest speaker at the September 16 meeting of the Clinton County Medical Society.

SUGGESTION IS A POTENT TRANQUILIZER

At a meeting of the American Psychological Association in Washington, D. C., early in September, Irwin J. Knopf, Harold Wolff and Judith Worell, of the S.U.I. College of Medicine, reported on the behavior of 144 students in the performance of assigned tasks under varying conditions. They were divided into three groups. One received 400 mg. of meprobamate; one a placebo; and the third group nothing. Half the members of each group performed an experimental task under artificial stress (periodic strong electric stimulation) and the other half did the work without the stress factor. Those receiving tranquilizers and placebos were told in advance that the pill might have a relaxant effect.

In the experimental stress group, controls made more "errors" than did either the drug or placebo teams. In the non-stress situation, the reverse was true. Performances of the drug and placebo groups did not differ significantly from one another. "The similarity of findings," the investigators said, "suggests that the differential effectiveness of the drug in this situation is open to question."

For Real Pain ...give real relief:

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Each tablet contains:

Aspirin	200 mg. (3 grains)
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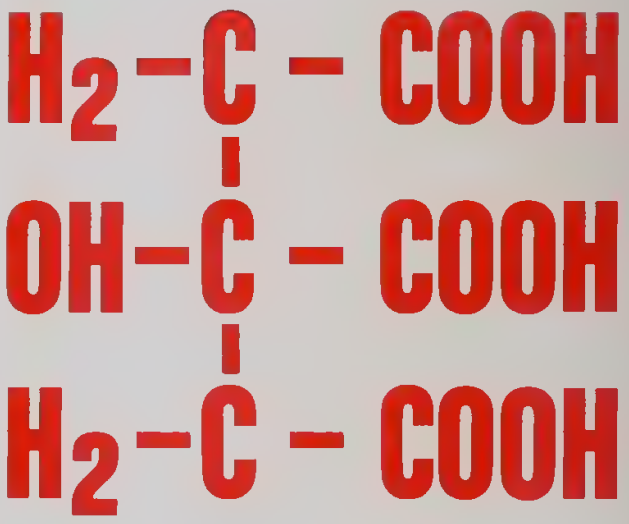
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ASSURES EVERY PATIENT PRECISE ANTIBIOTIC ACTION UNDER THE VARIED CONDITIONS OF REALISTIC CLINICAL PRACTICE

produces optimal gastric conditions

Ideally, most antibiotics are given on an empty stomach. Since citric acid helps control unfavorable variances in gastric content, conditions in the stomach are optimal with ACHROMYCIN V tetracycline with citric acid.

prevents interference with absorption

Sequestering of antibiotic molecules by free metallic ions, always present in the intestinal tract, can deprive patients of a full therapeutic dose. The three active carboxyl radicals which protect the action of ACHROMYCIN V trap these free cations and allow uninhibited antibiotic absorption.

provides for peak antibiotic action

At the site of infection where, in essence, all antibiotics are proved, ACHROMYCIN V combats a wide range of pathogens under optimal tissue conditions. Citric acid, a factor of medically established value in the natural acid-base regulating mechanism of the G.I. tract, facilitates a more complete, and rapid antibiotic action.

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even including
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1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:
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Pannmycin (tetracycline) equivalent to tetracycline hydrochloride . . . . 125 mg.
Albamycin (as novobiocin calcium) 62.5 mg.
Potassium metaphosphate . . . . 100 mg.
Dosage:
Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.
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For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 20 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.



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DEATHS

Dr. Clyde A. Henry, 85, who had practiced in Farson ever since the town was founded, died at his home there on August 15. He was a Life Member of the Iowa State Medical Society, and was selected in 1952 as its General Practitioner of the Year.

Dr. James William Pence, 79, who practiced medicine in Columbus Junction for 51 years, died on August 30 at Bellevue Hospital, in Muscatine.

Dr. Adolph Soucek, 51, died in a hospital at Madison on August 29. A graduate of the S.U.I. College of Medicine, he was successively a staff physician at the Woodward State Hospital and School and superintendent first of the Mt. Pleasant State Hospital and then of the Cherokee State Hospital, before going to Wisconsin to take charge of the Mendota State Hospital, Madison, in 1948.

Dr. G. Henry Mammen, 86, who practiced medicine in LeMars for 25 years before moving to Chicago in 1919, died on August 30 at Lutheran Deaconess Hospital, Chicago, where he had been a member of the surgical staff.

Dr. Walter E. Anthony, 69, an Ottumwa physician since 1912, died at his home there on August 22, following a heart attack. He had been in poor health for several years.

GLAUCOMA STUDY

Reporting on the survey which he conducted last spring in cooperation with the city-county health department there, Dr. M. F. Armaly, of the S.U.I. Department of Ophthalmology has said: "It is too early to tell exactly how many of the 319 individuals tested in this study have glaucoma. The question of whether an individual has or has not glaucoma is by no means one that can be settled by one examination or at one particular time. Follow-up becomes of major importance to help answer this question.

"However, one can say that in these 319 individuals who, to the best of their knowledge, had normal eyes and vision, more than five per cent proved to have this disease; and actually the incidence was much closer to 10 per cent than to five per cent. But again, it is too early to speak of exact numbers."

The 319 individuals were volunteers recruited from a cross section of Des Moines citizenry by the Health Division of the Des Moines Council of Social Agencies. They included people from various occupational, race and age groups.



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Dean H. King, M.D., Box 832, Spencer	3	1959
R. H. McBride, M.D., 1502 Pierce St., Sioux City	4	1961
Charles J. Baker, M.D., 403 Carver Building, Ft. Dodge	5	1960
J. W. Billingsley, M.D., 622 S. Fifth Ave., West, Newton	6	1959
George M. Wyatt, M.D., Mercy Hospital, Iowa city	7	1961
H. M. Hurevitz, M.D., 1607 Jersey Ridge, Davenport	8	1960
G. W. Bennett, M.D., 121½ S. Market St., Oskaloosa	9	1959
Robert H. Kuhl, M.D., Creston Medical Clinic, Creston	10	1961
H. W. Mathiasen, M.D., 321 Park Ave., Council Bluffs	11	1960

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	Term Expires
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William O. Purdy, M.D., Equitable Life Insurance Co. of Iowa, Des Moines	1961
Tom D. Throckmorton, M.D., Doctor's Park, 1407 Woodland, Des Moines	1959
P. C. Irwin, Equitable Life Insurance Co. of Iowa, Des Moines (Lay Member)	1959
W. F. Poorman, Box 1555, Des Moines (Lay Member)	1961
J. S. Russell, *Register & Tribune,* Des Moines (Lay Member)	1961

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Iowa State Medical Society
(Appointed by ISMS on Annual Basis)

	Term Expires
Richard F. Birge, M.D., 310 Bankers Trust Building, Des Moines	1959
Francis C. Coleman, M.D., Mercy Hospital, Des Moines	1959
William C. Eller, M.D., 325 Locust St., Waterloo	1959

	Representing	*Term Expires*
Leon A. Bondi, St. Lukes Hospital, Davenport	Iowa Hospital Ass'n	1959
A. O. Lothringer, 107 Security Building, Davenport	Hospital Service, Inc., of Iowa, Des Moines	1960
James E. Reeder, Jr., M.D., 533 Davidson Building, Sioux City	Associated Hospitals Service, Inc., Sioux City	1959

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FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

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WOI—Ames, Iowa
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"THE HEART OF AMERICA"

October 2 ..... Congenital Heart Disease
October 9 ..... The Heart and Athletics
October 16 ..... Coronary Disease
October 23 ..... Overweight
October 30 ..... High Blood Pressure

WSUI—Iowa City, Iowa
Monday at 2:30 p.m.

"SUPERSTITION AND SCIENCE"

October 6 ..... Cancer
October 13 ..... Goiter
October 20 ..... Anesthesia
October 27 ..... Wounds

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

October 1 ..... Habits
October 8 ..... Preventing Childhood Accidents
October 15 ..... Problems of Early Infancy
October 22 ..... Feeding Problems
October 29 ..... Mentally Retarded Child

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

October 5 ..... Athletics and Physical Education
October 12 ..... Habits
October 19 ..... Preventing Childhood Accidents
October 26 ..... Problems of Early Infancy

KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

October 7 ..... Convulsions in Children
October 12 ..... Trends in Family Rearing
October 19 ..... Juvenile Delinquency—Part I
October 26 ..... Juvenile Delinquency—Part II

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CHECKS SYMPTOMS: Includes traditional components for rapid relief of the traditional nonspecific nasopharyngitis, symptoms of malaise, chilly sensations, inconstant low-grade fever, headache, muscular pain, pharyngeal and nasal discharge.

Available on prescription only.

Adult dosage for ACHROCIDIN Tablets and new caffeine-free ACHROCIDIN Syrup is two tablets or teaspoonfuls of syrup three or four times daily. Dosage for children according to weight and age.

TABLETS *(sugar coated)*

Each Tablet contains:

ACHROMYCIN® Tetracycline	125 mg.
Phenacetin	120 mg.
Caffeine	30 mg.
Salicylamide	150 mg.
Chlorothen Citrate	25 mg.

Bottles of 24 and 100.

SYRUP *(lemon-lime flavored)*

Each teaspoonful (5 cc.) contains:

ACHROMYCIN® Tetracycline equivalent to tetracycline HCl	125 mg.
Phenacetin	120 mg.
Salicylamide	150 mg.
Ascorbic Acid (C)	25 mg.
Pyrilamine Maleate	15 mg.
Methylparaben	4 mg.
Propylparaben	1 mg.

Bottle of 4 oz.



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POTENTIAL ANTI-LEUKEMIA DRUGS

Two potential anti-leukemia drugs, reported to attack several forms of cancer in animals but to do little harm to the animals' normal tissues, were described on September 10 at the 134th annual meeting of the American Chemical Society, in Chicago. The research is the work of chemists at the laboratories of The Upjohn Company, Drs. Harold G. Petering, John S. Evans and Robert B. Birkenmeyer.

The first compound, identified as U-8344 was said to have "striking activity in regressing or inhibiting a variety of established leukemias and cancers in rats and mice, without undue toxic action against normal tissue." Chemically, it is called 5-Bis(2′-chloroethyl)aminouracil, and is related to ribonucleic acid, an essential part of all living cells.

The second material, U-7824, was described as "highly active in inhibiting transplantable mouse and rat tumors, with minimal toxic effects against normal tissue." Its chemical designation is N, N-p-bis-(2-iodoethyl)amino benzylphosphonate. Since phosphorus compounds play an important part in cell chemistry, the Upjohn chemists synthesized this phosphorus-containing material in the hope that it might be non-toxic and might move into cancerous tissue easily.

Both these new compounds are members of the nitrogen mustard class of chemicals, which includes the poisonous mustard gas used in World War I. Nitrogen mustards are presently used in cancer therapy, but they are limited by their serious side effects on normal cells. U-8344 and U-7824 have been chemically "tailored" to strip them of side effects. Both materials have been found to be active when taken by mouth and can be tolerated by human beings when administered as tablets, it was stated.

Clinical trials of the prospective drugs are still in progress, and it is therefore too early to tell what role they will have in the treatment of cancer, it was pointed out.

FOREIGN MEDICAL GRADUATES TESTED

More than 1,000 graduates of foreign medical schools took the second American medical qualification examination of the Educational Council for Foreign Medical Graduates on September 23, scattered among more than 60 centers throughout the world. At the first examination, on March 17, 298 candidates had been tested, and 152 received passing scores.

The 7½-hour examination is given only to candidates who have had 18 or more years of formal education, including at least four in a recognized medical school. The test measures candidates' knowledge of English as well as of medicine.

Those who pass the examination and enter the U. S. on immigrant visas are eligible for licensure in at least 14 states.



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NEW AMBAR #2
EXTENTABS
(METHAMPHETAMINE 15 mg., PHENOBARBITAL 1 gr.)
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a new potency for greater dosage flexibility in treating the **menopause**



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OMAHA MID-WEST CLINICAL SOCIETY

Following is the guest speakers' lecture schedule for the 26th annual meeting of the Omaha Mid-West Clinical Society, which is to be held at the Sheraton-Fontanelle Hotel, in Omaha, on November 3-6.

The sessions are a part of the official postgraduate educational program at both the University of Nebraska College of Medicine and the Creighton University School of Medicine.

S. Leon Israel, M.D., professor of gynecology and obstetrics at the Graduate School of Medicine, University of Pennsylvania

Nov. 3, 2:30 p.m. "Differential Diagnosis and Treatment of Amenorrhea"
Nov. 3, dinner "Use of Hormones in Gynecology-Obstetrics"
Nov. 3, 8:00 p.m. "Technic and Value of Intrafascial Hysterectomy"
Nov. 4, 9:00 a.m. "Use of Progesterone, Including the Newer Progestogens"

Louis T. Byars, M.D., associate professor of clinical surgery, Washington University School of Medicine, St. Louis

Nov. 3, 9:15 p.m. "Surgical Treatment of Tumors of Parotid Salivary Gland"
Nov. 3, lunch "Treatment of Acute and Chronic Ulcerations."
Nov. 3, 4:00 p.m. "Surgical Treatment of Peripheral Congenital Vascular Lesions"
Nov. 3, 7:30 p.m. "Surgical Treatment of Malignancies of the Oral Cavity"

Benjamin M. Gasul, M.D., director of the Pediatric Cardiophysiology Department, Cook County Children's Hospital, Chicago

Nov. 5, 4:00 p.m. "Recent Advances in Auscultation of Heart in Infants and Children"
Nov. 6, lunch "Salient Points in Diagnosis of Rheumatic Heart Disease in Children"
Nov. 6, 1:30 p.m. "Presentation of Interesting Diagnostic Cases With Congenital Malformation of the Heart"

Earl D. Osborne, M.D., professor of dermatology and syphilology, University of Buffalo School of Medicine

Nov. 3, 4:30 p.m. "Care of the Skin of the Newborn and Treatment of Infections in Infants and Children"
Nov. 4, 10:00 a.m. "A Cutaneous Therapeutic Armamentarium for General Practice"
Nov. 4, lunch "Diagnosis and Treatment of Pruritis Ani et Vulvi"
Nov. 4, 4:00 p.m. "The Diagnosis and Treatment of Cutaneous Malignancy"

Edward M. Litin, M.D., consultant in the Section of Psychiatry at the Mayo Clinic

Nov. 3, 3:00 p.m. "The Family Physician's Responsibility in Respect to Juvenile Delinquency"



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1. Welsh, A. L., and Ede, M.: J.A.M.A. *166*:158, 1958.
2. Bleiberg, J.: J.M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.
5. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.

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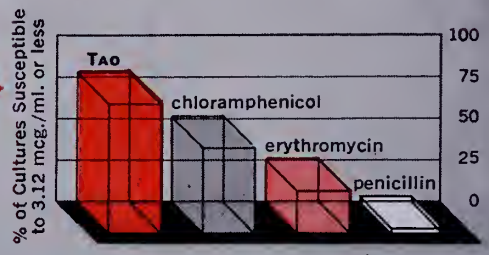
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. Tao has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to Tao, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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®TRADEMARK

Nov. 4, lunch "The Psychiatric Aspects of Pain and Its Management"
Nov. 4, 2:45 p.m. "Recognition and Management of the Depressed Patient"
Nov. 4, 7:30 p.m. "The Place of Tranquilizers in the Practice of Medicine"

Julian E. Jacobs, M.D., lecturer in orthopedics at the Duke University Medical School

Nov. 4, 3:30 p.m. "Foot Disorders in Children"
Nov. 4, dinner "Neuralgia and Backache—Corrective Treatment"
Nov. 4, 8:30 p.m. "A Practical Method of Treating Colles' Fractures"
Nov. 5, 9:00 a.m. "Foot Deformities and Hip Dysplasia"

Victor Goodhill, M.D., clinical professor of otologic surgery, University of Southern California School of Medicine

Nov. 5, 3:30 p.m. "Medical Evaluation of the Deaf Child"
Nov. 6, 9:00 a.m. "Tympanoplastic Surgery for Deafness Due to Chronic Otitis Media"
Nov. 6, lunch "The Problem of Tinnitus"

Thomas H. McGavack, M.D., professorial lecturer in medicine, George Washington University School of Medicine, Washington, D. C.

Nov. 3, 9:45 a.m. "Fats or No Fats—Metabolic and Clinical Implications"
Nov. 3, lunch "Diabetic Coma—Bedside Prognosis and Management"
Nov. 3, 8:30 p.m. "New Synthetic Steroids in Therapy"
Nov. 4, 9:30 a.m. "Critical Appraisal of Therapy with Oral Hypoglycemic Agents, Particularly Carbutamide—Tolbutamide—and DBI"

W. Edward Chamberlain, M.D., special assistant to the chief medical director for atomic medicine, Veterans Administration, and professor emeritus of radiology at Temple University

Nov. 4, 4:30 p.m. "The Truth About the Dangers of Radiation"
Nov. 4, 8:00 p.m. "The Natural History of Herniated Intervertebral Discs"
Nov. 5, 9:30 a.m. "X-ray in the Diagnosis of Diseases of the Chest"
Nov. 5, lunch "X-ray in the Diagnosis of Gastrointestinal Lesions"

Myron Prinzmetal, M.D., professor of clinical medicine, U.C.L.A.

Nov. 5, 2:30 p.m. "Clinical and Experimental Observations in Angina Pectoris"
Nov. 6, 9:30 a.m. "The Management of 'Mild' Myocardial Infarction"
Nov. 6, 2:00 p.m. "The Status of the Auricular Arrhythmias"

Campbell M. Gardner, M.D., assistant professor of surgery at McGill University, Montreal

Nov. 5, 10:00 a.m. "The Diagnosis and Treatment of Various Lesions of the Stomach"
Nov. 5, lunch "Emergency Care of the Crash Injury Victim"
Nov. 5, 4:30 p.m. "Chronic Lesions of the Colon"
Nov. 6, 10:00 a.m. "The Etiology of Jaundice in Relation to Its Therapy"

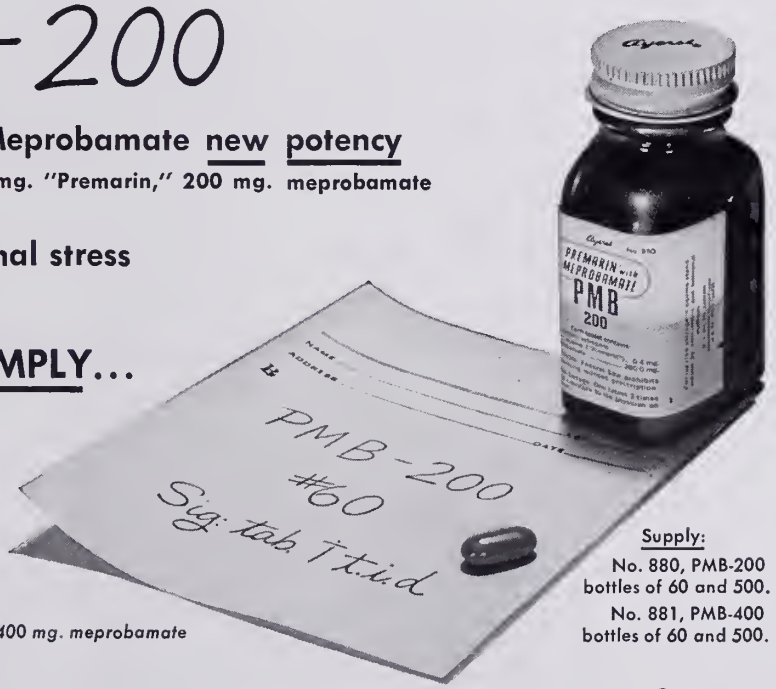
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DETROIT HOME CARE DEMONSTRATION

In Michigan, an interesting demonstration of home-care programs is being administered by the Visiting Nurse Association of Metropolitan Detroit. The prime difference between this home-care demonstration program and other programs is the fact that this one centers about the private physician and his care of the patient.

The Detroit Home Care Demonstration Program has made available to the private practitioner in the care of his individual patient such services as bedside nursing, physical therapy, occupational therapy, diet therapy, home aid service and social case work. Other agencies have made available family counseling, physical and psychological evaluation, physical and vocational rehabilitation, and financial assistance.

At all times, these patients have remained the private patients of the family physician, who maintains control of the entire program carried out on behalf of his patient. Whenever a patient could pay for the ancillary services furnished by the Visiting Nurse Association or by one of the other community agencies, he was requested to do so in accordance with his ability to pay. In no instance was there any interference with the patient-doctor relationship. Physicians and social agencies may refer cases to the Visiting Nurse Association of Metropolitan Detroit, which, upon study and after conferences between its officers and the referring physician, will then determine the suitability of the patient for admission to the Home Care Program.

Home-care programs can be developed within the framework of other Michigan communities. Sometimes such services can be given by public health nurses working for a health department, at other times by nurses in a visiting nurse association. As more physicians are aware of the availability of such services and as more families become acquainted with the benefits of such comprehensive home care, the demands for home-care services will extend into other areas of the state.

As was said in a J.A.M.A. editorial on April 12, 1958,* "Home care often shortens the patient's stay in the hospital, eliminates the necessity for frequent readmissions, and prevents the hospitalization of some patients and the custodial institutional care of others. Home-care programs have other advantages. Too often, removal to a hospital destroys the last traces of a patient's independence, and this is followed by a rapid deterioration in his physical and mental conditions. Many patients who do poorly in the hospital make notable gains on home care."

—Vlado Getting, M.D., Dr. P.H.
in J. MICHIGAN M. SOC., 57:1148, (Aug.) 1958.

* Editorial: Home Care Programs. J.A.M.A., 166:1868, (Apr. 12) 1958.

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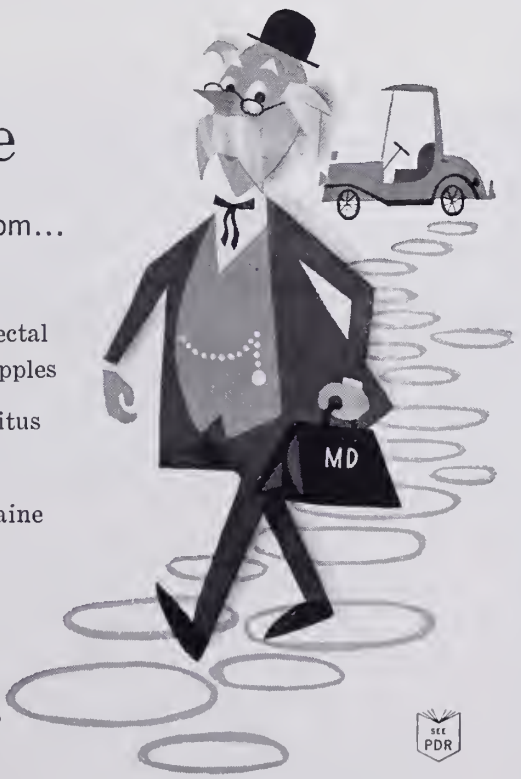
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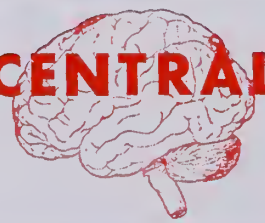
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ARTHRITIS AND RELATED DISORDERS

Twelve nationally prominent investigators in the field of arthritis and related disorders will participate in the Second Oklahoma Colloquy on Advances in Medicine which will take place at the Medical School of the University of Oklahoma, in Oklahoma City, on November 12-15. They are Alfred J. Bollet, M.D., assistant professor of medicine at Wayne University; R. H. Follis, Jr., M.D., of the Armed Forces Institute of Pathology; Robert A. Good, M.D., professor of pediatrics at the U. of Minnesota; Alexander B. Gutman, M.D., head of medicine at Mt. Sinai Hospital, New York City; Ralph Heimer, Ph.D., of the Department of Rheumatology at the Hospital for Special Surgery, New York City; C. H. Slocumb, M.D., of the Mayo Clinic; John H. Talbott, M.D., professor of medicine at the University of Buffalo; and Morris Ziff, M.D., associate professor of medicine at New York University.

The joint sponsors of the colloquy, with the Oklahoma school, are Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories and the Schering Corporation.

On November 15, the day on which the colloquy ends, there will be a football game between Oklahoma University and the University of Missouri at Norman. Doctors who wish to attend it should write for tickets to the Athletic Ticket Office, University of Oklahoma, Norman.

Coming Meetings

(Continued from page 563)

Nov. 17-22	**Congenital Heart Disease (American College of Physicians).** The Johns Hopkins Hospital, Baltimore
Nov. 17-22	**Neurology and Neurosurgery for General Physicians.** U. of Minnesota, Minneapolis
Nov. 18-20	**National Conference on Air Pollution (U.S.P.H.S.).** Sheraton-Park Hotel, Washington, D. C.
Nov. 18-22	**Puerto Rico Medical Association.** Santuree, Puerto Rico
Nov. 19	**Physical and Clinical Aspects of the Endocrine System.** U.C.L.A., Los Angeles
Nov. 19	**Surgery, Ano Rectal Diseases and Their Management.** U. of Oklahoma Medical Center, Oklahoma City
Nov. 19-21	**Eleventh Annual Session, Conference on Electrical Techniques in Medicine and Biology.** Nicollet Hotel, Minneapolis
Nov. 20-22	**American Association of Blood Banks.** Netherland Plaza Hotel, Cincinnati
Nov. 20-22	**American College of Cardiology, Interim Meeting.** Jung Hotel, New Orleans
Nov. 20-22	**Obstetrics and Gynecology.** U.C.L.A., Los Angeles
Nov. 20-22	**Physical Medicine for Specialists.** U. of Minnesota, Minneapolis
Nov. 20-22	**Symposium on the Status of Tuberculosis as a Public Danger (Deborah Tuberculosis Sanatorium and Hospital of Brown Mills, New Jersey).** Bellevue-Stratford Hotel, Philadelphia
Nov. 20-22	**Western Surgical Association, Annual Meeting.** Kahler Hotel, Rochester, Minnesota
Nov. 21-22	**Fifth Annual Conference, Mental Health Representatives of the State Medical Associations (AMA Council on Mental Health).** Drake Hotel, Chicago
Nov. 21-22	**Obstetrics and Gynecology.** U.C.L.A., Los Angeles
Nov. 28-Dec. 18	**Bahamas Medical Conference.** British Colonial Hotel, Nassau, Bahamas

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WHAT DO YOU KNOW ABOUT HOSPITALS?

Physicians do not know very much about hospitals, if a study reported in HOSPITALS* reflects the situation accurately. There is little reason to suspect that it does not.

A study was conducted in two hospitals, one a 300-bed hospital in a city of 200,000, the other in a 600-bed hospital in a city of more than a million population. Both were general institutions accepting acute cases.

The questionnaire consisted of 47 questions with multiple-choice answers. They were in four groups covering medical-staff organization, general administration, personnel administration and financial management. All scores were low, with 90.1 per cent returning less than 60 per cent correct answers. Ignorance of personnel and financial problems of the hospitals was the most striking finding. In these fields, the number of correct answers could have been explained by chance alone.

It is interesting to note that physicians in the smaller community were considerably better informed than were those practicing in the large city. The report carries no explanation of this difference, and does not attempt to fix responsibility for the meagerness of physicians' knowledge. It does assume, however, that more knowledge of hospital problems might reduce the tensions which sometimes arise between physicians and hospital administrators.

Physicians knew very little about admission policy. When asked what types of patients wouldn't knowingly be admitted, only 16.9 per cent of *staff* members in the large hospital and 35.4 per cent in the smaller hospital knew the correct answer. They knew even less about how their patients met hospital bills. The autopsy rate was known by 59 per cent and 21.2 per cent, respectively. Even staff-appointment responsibility was not well understood. In the smaller hospital, 45.1 per cent knew who had the power to appoint and remove staff members, but in the larger hospital, only 11.9 per cent were informed.

General practitioners made the poorest scores. Six specialty groups were about equal in their knowledge of all of the hospital problems. It was discovered that those who used the hospitals most knew most about them. Highest scores were made by those who made more than 25 hospital calls a month, and lowest by those who made five or less.

It is surprising that the group most vocal about hospital domination of the practice of medicine has the least knowledge of hospital administration. General practitioners should be chagrined to find that members of their group have so neglected to inform themselves on a subject of considerable importance.

If physicians individually will not take the trou-

* Gottlieb, S. R.: How much do doctors know about hospitals? HOSPITALS, 32:33-35, (Aug.) 1958.



all cold symptoms

New timed-release tablet provides:

...the superior decongestant and antihistaminic action of Triaminic

...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks

...an expectorant to augment demulcent fluids

...the specific antipyretic and analgesic effect of well-tolerated APAP

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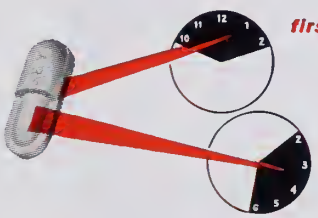
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To augment demulcent respiratory secretions.

For specific, highly effective antipyresis and analgesia.



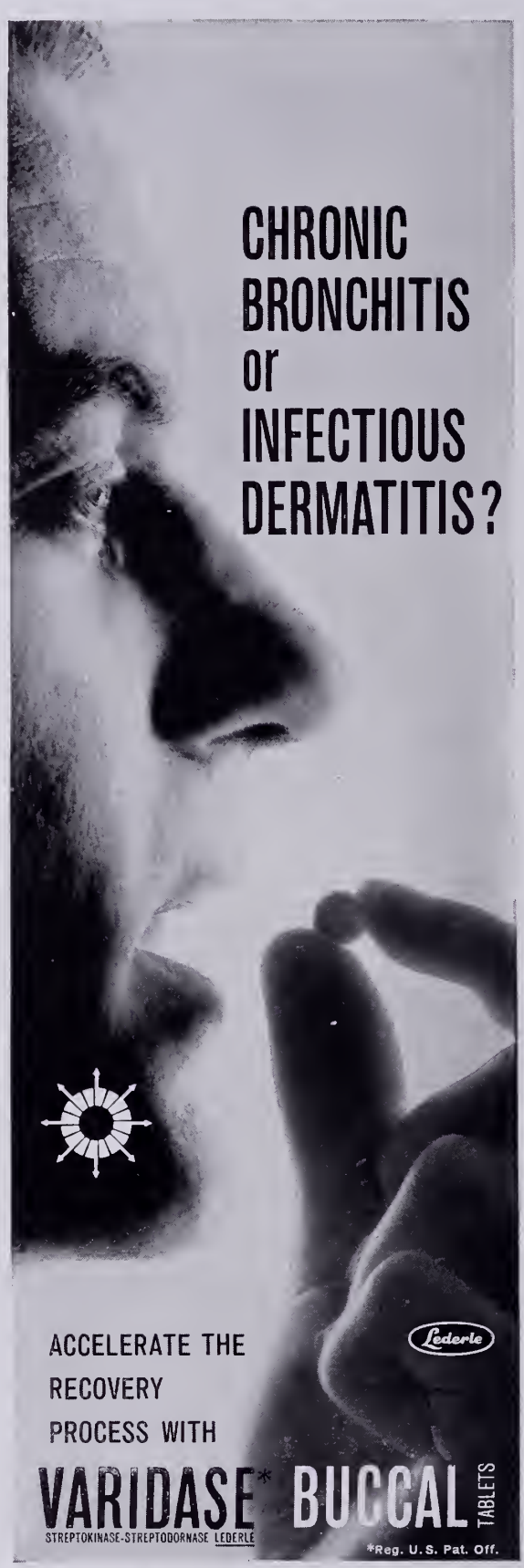
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ble to familiarize themselves with hospital operation, the county societies may need to set up intensive educational programs.

—Editorial, NORTHWEST MEDICINE 57:1120-1121, (Sept.) 1958.

FILM ON FOOD QUACKERY

How modern "medicine men" dupe the public into spending millions of dollars on unnecessary or overpriced nutritional products is the story unfolded in a new AMA film. Prepared especially for airing over local television stations, this new 27-minute film, "The Medicine Man," dramatically pinpoints the fight against quackery in the food and nutrition field.

The film singles out problems which stem from health lecturers who travel from town to town giving misinformation on nutrition as a tie-in to plugging their own products of questionable merit, and from door-to-door salesmen who misrepresent the value of nutritional products. The film also shows how the medical profession cooperates with the federal Food and Drug Administration and voluntary agencies such as the National Better Business Bureau in the crackdown on these food quacks.

The film was first shown at the AMA Public Relations Institute, in Chicago on August 27 and 28, and prints of it are now available from the AMA Film Library.

TRANQUILIZER ADDICTS

Physicians are advised to screen carefully requests of patients who desire prescriptions for sleeping pills, nerve pills and other non-narcotic medications to which they have become addicted. Reports of such requests, received by the Minnesota State Medical Association within the past 30 days, are greater than those for any life period in the past.

Neurotic patients—frequently women—are going from doctor to doctor seeking such prescriptions. Often the reports have come from members of the patient's family who have noted alarming symptoms, mental aberration, or apparent drunkenness. The concerned relatives usually ask the Association to warn other physicians, by name, about the affected individuals. For obvious reasons the Association is unable to comply with such requests. However, it would certainly appear that a general word of caution is in order.

It is recommended that all physicians be on guard when new patients come to them with requests for specific medications. Remember, precautions similar to those recommended for dealing with the transient drug addict are here recommended. These include securing a complete history of the patient's ailment as well as making a complete and thorough examination in every case.

—Editorial, MINNESOTA MEDICINE 41:590, (Aug.) 1958.

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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card. 1:395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology 8:504, Dec. 1957.*

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(Additional Want Ads on page lxxviii)

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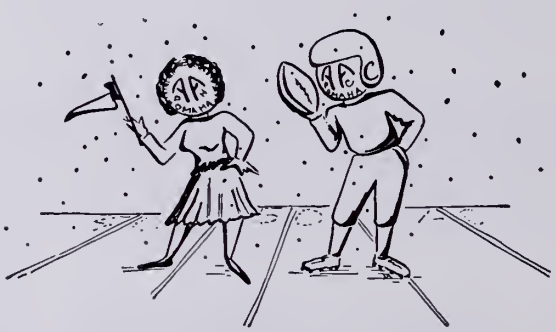
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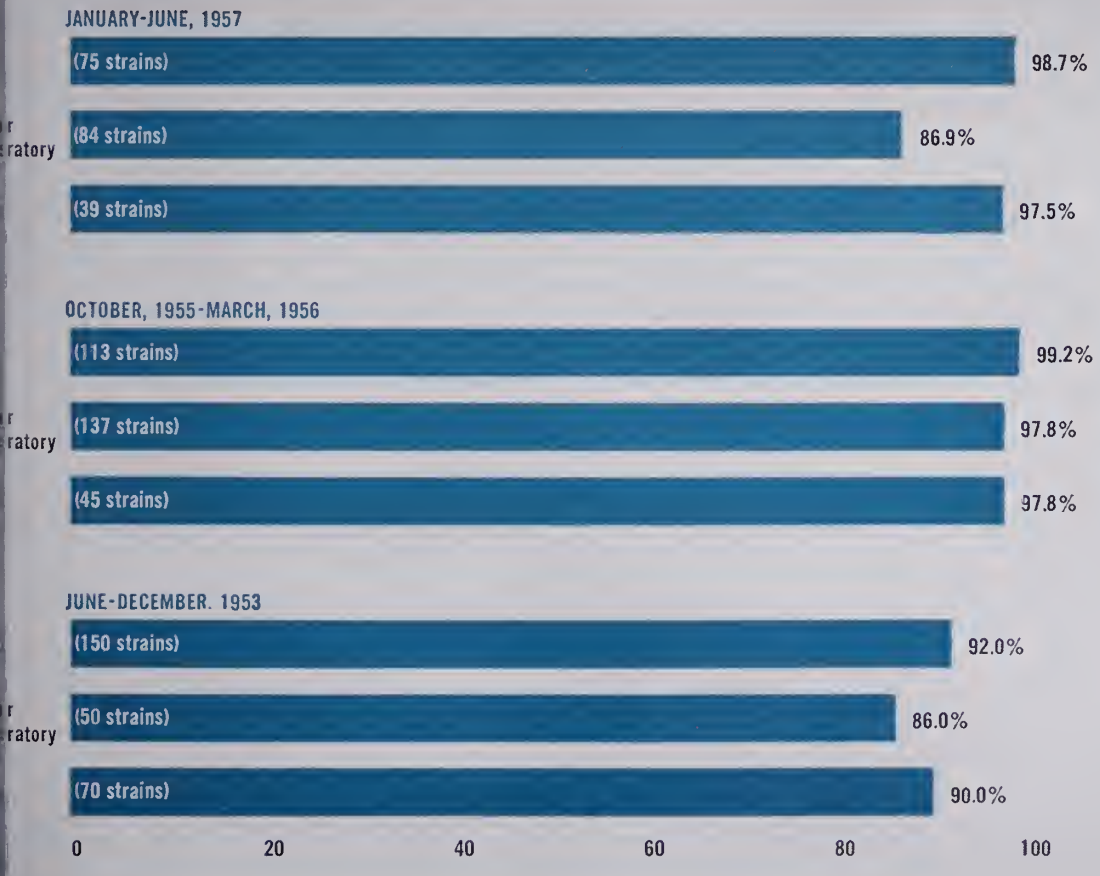
REFERENCES: (1) Royer, A., in Welch, H., & Martí-Ibañez, F.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, 1958, p. 783. (2) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* 101:397, 1958. (3) Koch, R., & Donnell, G.: *California Med.* 87 1957. (4) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M. A. J.* 77:844, 1957. (5) Cooper, M. L., & Keller, H. *J. Dis. Child.* 95:245, 1958. (6) Caswell, H. T., *et al.*: *Surg., Gynec. & Obst.* 106:1, 1958. (7) Brown, J. V.; Sedwitz, J. L., & Hanner, J *U. S. Armed Forces M. J.*: 9:161, 1958. (8) Sarason, E. L., & Bauman, S.: *Surg., Gynec. & Obst.* 105:224, 1957.

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Vol. XLVIII NOVEMBER, 1958 No. 11

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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

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1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

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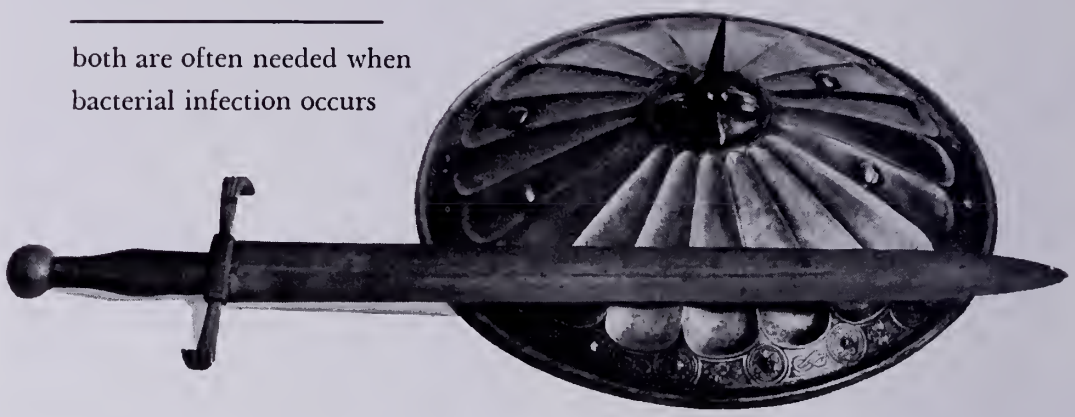
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for protection against monilial complications
Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

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Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.* Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

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†Round-table Discussion by Leading Investigators, San Francisco, Calif., June 20, 1958.

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Hospital practice of infant feeding

Self-regulated schedules

The newborn may become a feeding problem if the formula is excessive or if he is awakened to be fed forcefully.

The young infant may balk at new food or procedure. The older infant, devoted to his bottle, may resent weaning—it takes a certain readiness for weaning to make the change agreeable. Later, the infant may become somewhat independent and arbitrary—what he enjoyed yesterday he rejects today.

When a feeding problem is in the making, sensible decorum will solve it. Nature invites infant feeding cooperation through hunger. If hunger is appeased on demand rather than by clock there will be fewer problems—the baby is the best judge of when he wants food and how much.

Feeding must be adapted to the infant individually to make it a pleasurable experience. This is the current objective in successful infant feeding formulated for normal infants in the charts below:

WHOLE MILK FORMULAS

Age Months	Whole Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	10	10	2	3	6	320
1	12	13	3	4	6	532
2	15	13	3	4½	6	480
3	17	9	3	5	5	520
4	20	11	3½	6	5	610
5	23	11	4	6½	5	700
6	26	10	4	7	5	760
7	28	11	3	7½	5	740
8	30	11	2½	8	5	750
10	32	9	2	8	5	760
12	32	9	0	8	5	640

EVAPORATED MILK FORMULAS

Age Months	Evaporated Milk Fluid Oz.	Water Oz.	Karo Syrup Tbsp.	Each Feeding Oz.	Number of Feedings in 24 Hours	Total Calories
Birth	6	12	2	3	6	380
1	8	16	3	4	6	532
2	9	14	3	4½	6	576
3	10	15	3½	5	5	650
4	12	18	4	6	5	768
5	12	21	4	6½	5	768
6	13	22	4	7	5	812
7	14	21	3	7	5	796
8	15	20	2	7	5	780
10	16	16	1	8	4	764
12	16	16	0	8	4	704

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Concentration: Volume for volume Karo Syrup furnishes twice as many calories as similar milk modifiers in powdered form.

Purity: Karo Syrup is processed at sterilizing temperatures, sealed for complete hygienic protection and devoid of pathogenic organisms.

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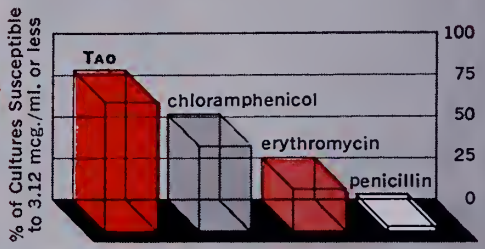
effective . . .

CLINICAL RESULTS	adults	children	all Staph infections
Cured	172 (80%)	148 (89%)	71 (88%)
Improved	28 (13%)	8 (5%)	7 (9%)
Failure	17 (7%)	11 (6%)	3 (3%)

Types of infecting organisms: The majority of identified etiologic microorganisms were Staph. aureus and Staph. albus. TAO has its greatest usefulness against organisms such as: staphylococci (including strains resistant to other antibiotics), streptococci (beta-hemolytic strains, alpha-hemolytic strains and enterococci), pneumococci, gonococci, Hemophilus influenzae.

even against resistant staph[1,2] . . .

Per cent of "antibiotic-resistant" epidemic staphylococci cultures susceptible to TAO, erythromycin, penicillin and chloramphenicol.[1]



well tolerated . . .

REACTIONS:

(a) adults	(b) children
Total—9.2% (20 out of 217)	Total—0.6% (1 out of 167)
Skin rash—1.4% (3 out of 217)	Skin rash—none
Gastrointestinal—7.8% (17 out of 217)	Gastrointestinal—0.6% (1 out of 167)

There was complete freedom from adverse reactions in 94.5% of all patients. Side effects in the other 5.5% were usually mild and seldom required discontinuance of therapy.

plus . . . stability in gastric acid • rapid, high and sustained blood levels • high urinary concentrations • outstanding palatability in a liquid preparation.

Dosage and Administration: Dosage varies according to the severity of the infection. For adults, the average dose is 250 mg. q.i.d.; to 500 mg. q.i.d. in more severe infections. For children 8 months to 8 years of age, a daily dose of approximately 30 mg./Kg. body weight in divided doses has been found effective. Since TAO is therapeutically stable in gastric acid, it may be administered at any time, without regard to meals.

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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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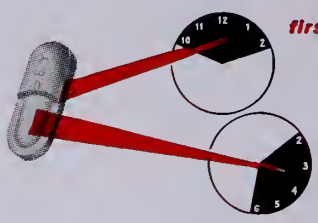
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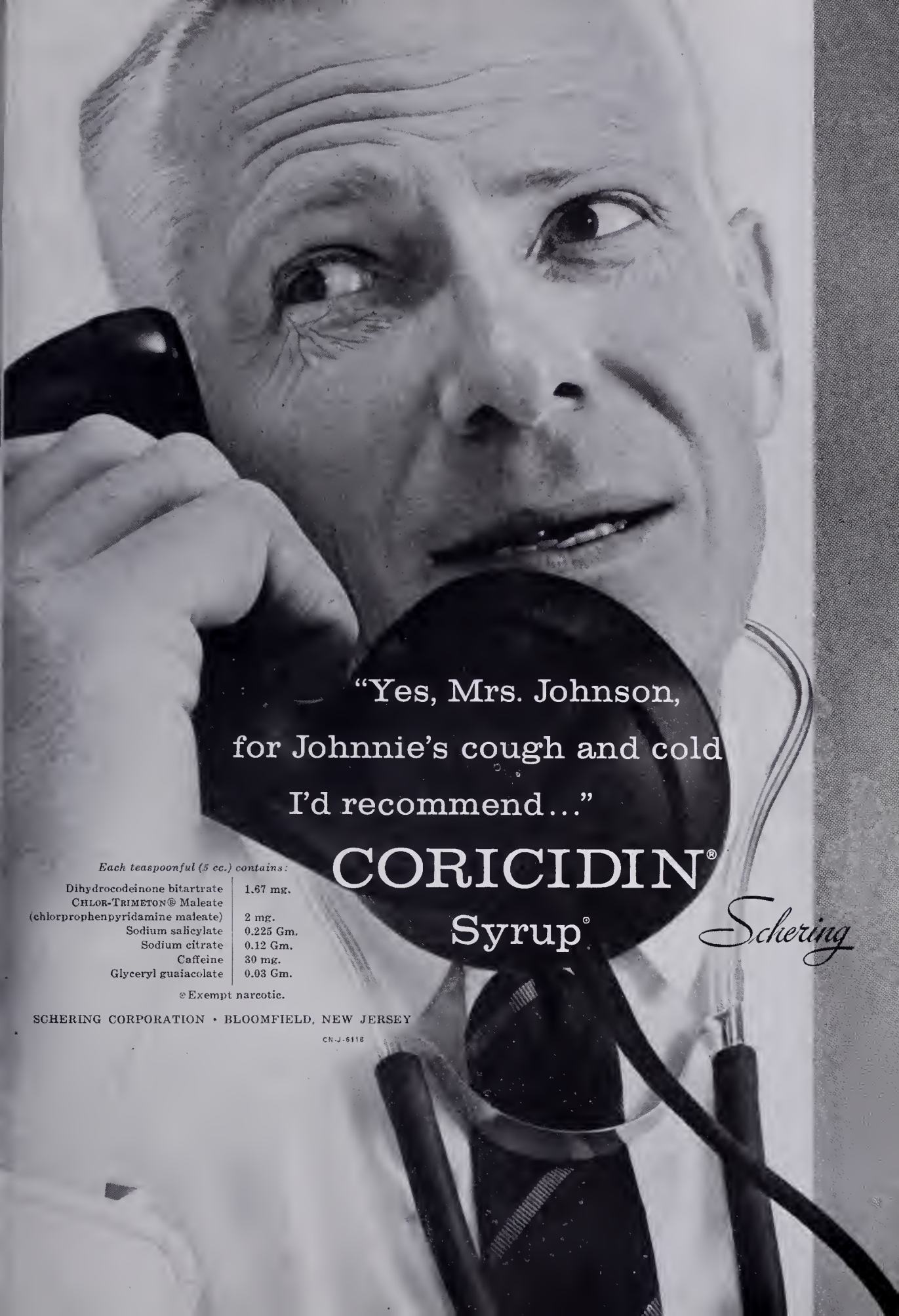
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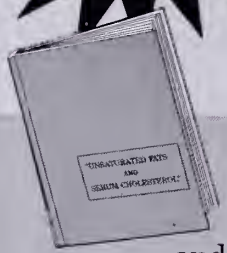
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PUBLISHED REFERENCES: 1. Carpenter, E. B.: Southern Medical Journal 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Little, J. M., and Truitt, E. B., Jr.: J. Pharm. & Exper. Therap. 119:161, 1957. 4. Morgan, A. M., Truitt, E. B., Jr., and Little, J. M.: J. Am. Pharm. Assn., Sci. Ed. 46:374, 1957. 5. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 6. Park, H. W.: J.A.M.A. 167:168, 1958. 7. Truitt, E. B., Jr., and Patterson, R. B., Proc. Soc. Exper. Bio. & Med. 95:422, 1957. 8. Truitt, E. B., Jr., Patterson, R. B., Morgan, A. M., and Little, J. M.: J. Pharm. & Exper. Therap. 119:189, 1957.

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CONDITION	NO. PATIENTS	RESPONSE			
		"marked"	moderate	slight	none
STUDY 1[1]					
Skeletal muscle spasm secondary to acute trauma	33	26	6	1	—
STUDY 2[2]		"pronounced"			
Herniated disc	39	25	13	—	1
Ligamentous strains	8	4	4	—	—
Torticollis	3	3	—	—	—
Whiplash injury	3	2	1	—	—
Contusions, fractures, and muscle soreness due to accidents	5	3	2	—	—
STUDY 3[5]		"excellent"			
Herniated disc	8	6	2	—	—
Acute fibromyositis	8	8	—	—	—
Torticollis	1	—	—	1	—
STUDY 4[6]		"significant"			
Pyramidal tract and acute myalgic disorders	30	27	—	2	1
TOTALS	138	104 (75.3%)	28 (20.3%)	4	2

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"An excellent result, following methocarbamol administration, was obtained in all patients with acute skeletal muscle spasm."[5]

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"In no instance was there any significant reduction in voluntary strength or intensity of simple reflexes."[6]

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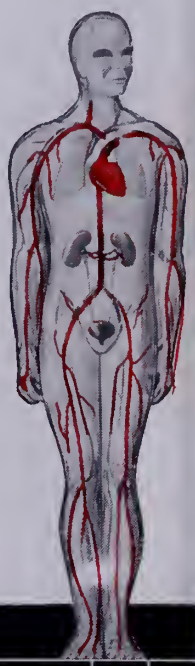
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Investigator

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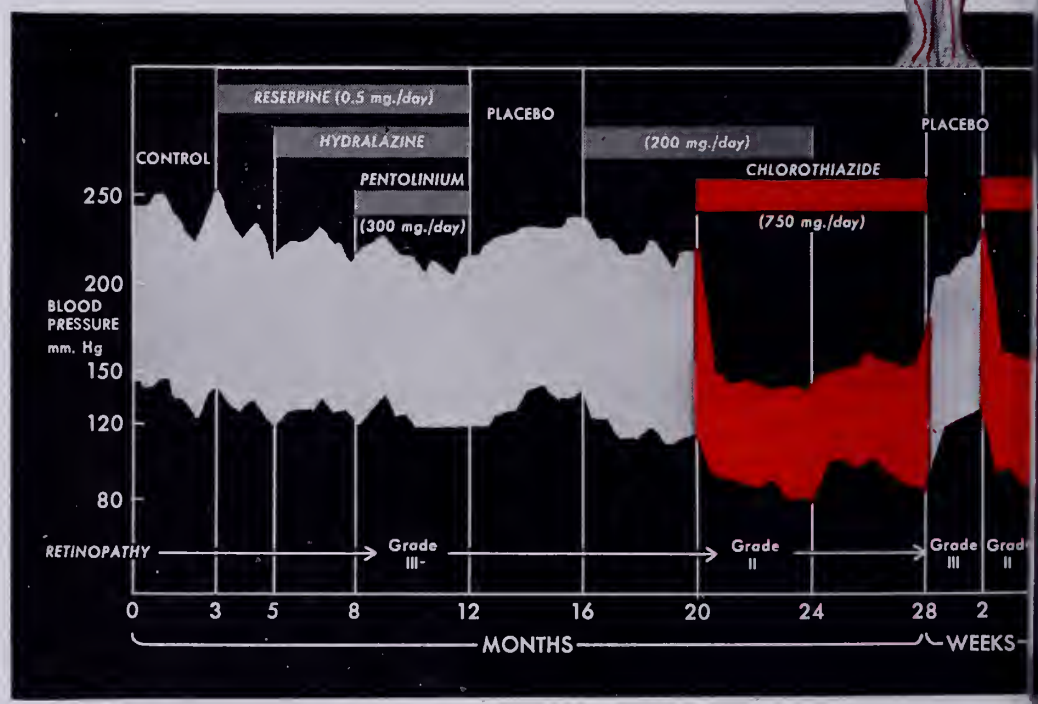
Wilkins, R. W.: New England J. Med. **257:1026**, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." ". . . it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). . . ."



Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. **166:137**, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension," Hollander, W. and Wilkins, R. W.: Boston Med. Quart. **8: 1**, September, 1

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1. Meprobamate is more widely prescribed than any other tranquilizer. Source: Independent research organization; name on request.
2. Baird, H. W., III: A comparison of Meprospan (sustained action meprobamate capsule) with other tranquilizing and relaxing agents in children. Submitted for publication, 1958.

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*Finnerty, F. A. Jr.: New York State J. Med. 57:2957 (Sept. 15) 1957.

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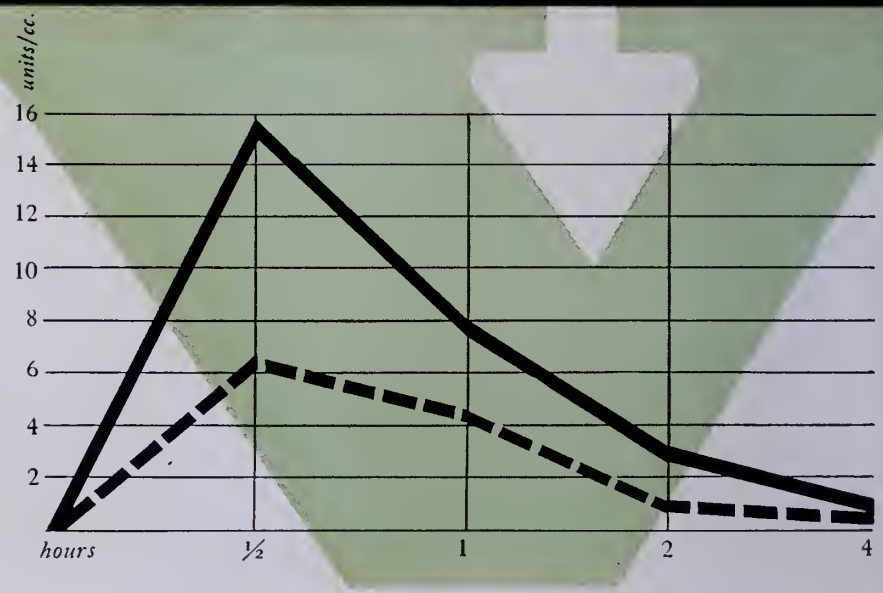
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Dependable control of hyperacidity and hypermotility. Spasmolysis. Prompt and prolonged pain relief and tranquillity.

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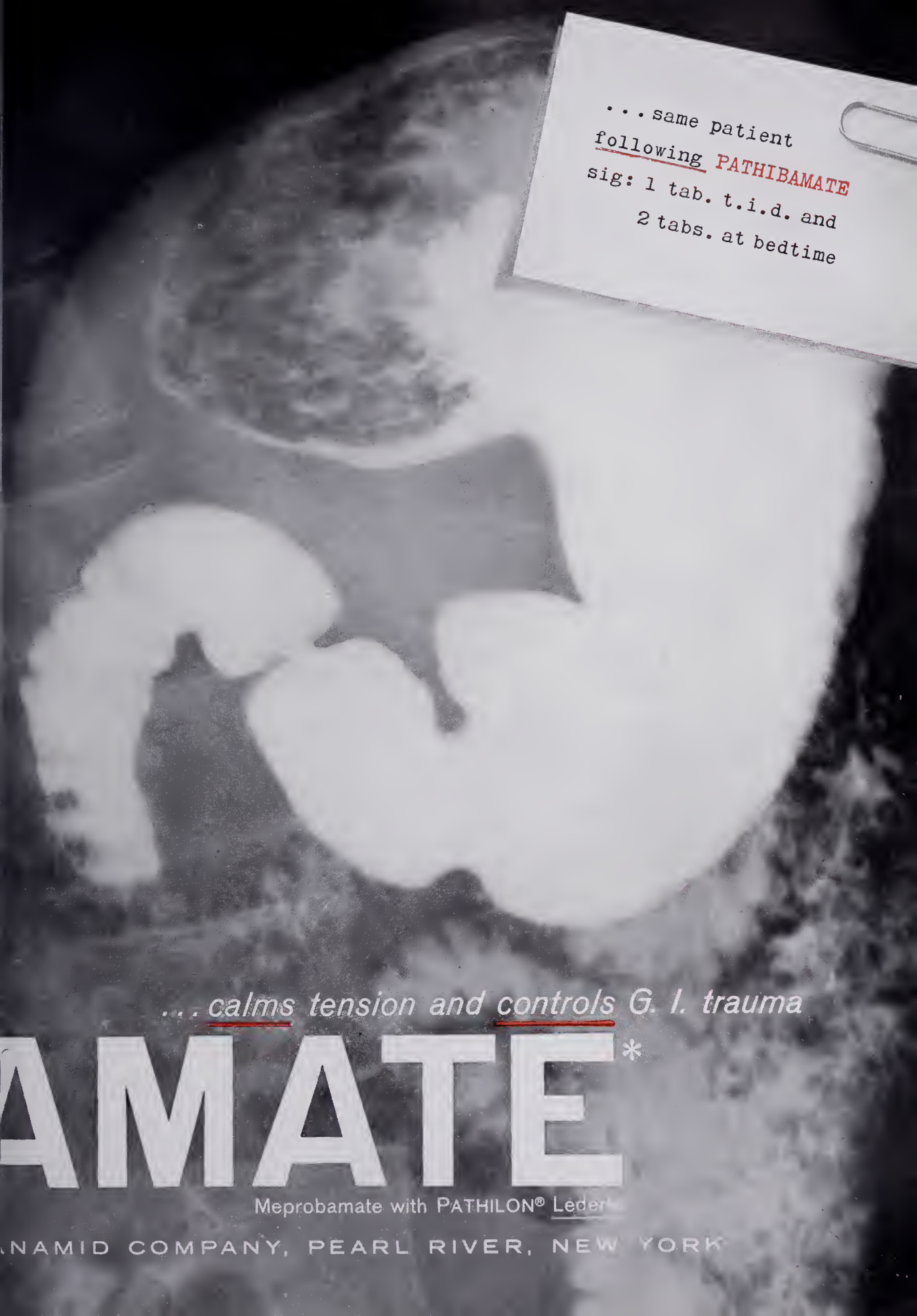
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Dartal helps the patient reintegrate his mental processes

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.



The Month in Washington

Washington, D. C.—For many years a number of students of government have been searching for some way of checking the growth of the Federal bureaucracy and returning certain functions to the states.

Two particularly vexing problems are involved. Because the Federal government has moved into so many taxation areas, states complain that even if they wanted to regain control over certain programs, they would have no way of paying for them. Also, a fool-proof mechanism would have to be devised to insure that the programs didn't break down during the transition and that the states would in fact keep up the activities after U. S. dollars stopped coming.

If the administrative details could be worked out, and if Congress would agree to reverse the trend, a number of U. S. Public Health Service grants programs presumably could be turned over to the states.

President Eisenhower is deeply interested in attempting to turn the tide, and last year the Administration came up with a concrete proposal. It was to make the states completely responsible for the water pollution control operation ($50 million annually in U. S. grants) and vocational education ($35 million a year). So the states would have money to finance the work, the U. S. would drop part of its tax on telephone service, inviting the states to levy their own tax.

Congress was cool to the idea. Besides, after giving it more consideration, the then Secretary Folsom of HEW decided it wouldn't work because the low-income states couldn't realize enough from the telephone tax to meet the extra expenses.

But the Administration hasn't given up hope. Supported by the federal-state joint action committee, Secretary Flemming (Folsom's successor) is proposing a new method, one that he thinks will meet the problem of the low income states.

He would shift to the states the same two programs—water pollution control and vocational education. At the same time the U. S. would forego 30 per cent of the present tax it imposes on telephone service and permit the states to levy this amount. In addition, to take care of the poor states the U. S. would allocate among states an amount equal to 10 per cent of the present telephone tax, distributing relatively larger shares to the low per capita income states.

In dollars, as explained by Secretary Flemming, the states would be losing $85 million in U. S. grants, but they would have an opportunity to collect a total of about $109 million on telephone service and receive $36 million in the new grant arrangement.

In announcing that the Administration was going to try again to have this idea adopted, Mr. Flemming emphasized that both programs were of great value and shouldn't be allowed to "drop through the cracks in the floor" during the period of transition. He noted that under his proposal the U. S. could step in and make a state use the money for the specific purpose if it showed an inclination to collect the tax but spend the money somewhere else.

The question now is whether Congress will show any enthusiasm for the plan. At any rate, it will be opposed vigorously by the telephone industry and vocational education interests. The latter are fearful that their programs might suffer under all-state operation.

NOTES:

HEW is giving careful study to the Bayne-Jones report which proposed a doubling of U. S. medical research spending and early construction of 14 to 20 medical schools. Secretary Flemming told a press conference that final estimates of the cost of carrying out some of the report's proposals are due to be finished in December.

* * *

Social Security Administration reports a sharp rise in volume of appeals from applicants denied social security benefits, mostly under the disability section enacted two years ago. The administration's staff of referees has been increased four-fold in two years to handle the work load. Three times as many hearings are held on disability claims as on all others combined.

* * *

Social Security Commissioner Charles I. Schottland, back from a month's tour of Russia, reports that nurseries and old people's homes in Russia appear to be "excellently" staffed with one employee for about every three old persons and one for every two and a half children. He points out that a comprehensive social security program is a must in Russia, inasmuch as wages are about the only source of income. When wages halt, the people have only social security to fall back on.

* * *

With President Eisenhower's appointment of General Elwood R. Quesada as administrator of the new Federal Aviation Agency, the American Medical Association is renewing its plea for an Office of Civil Aviation Medicine manned by a Civil Air Surgeon.

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Personals



Dr. Lynn L. Leibel, a 1956 graduate of the Creighton University Medical School, has joined **Drs. Emmett and Henning Mathiasen** in practice at Council Bluffs. He interned at Council Bluffs Mercy Hospital, and has practiced for a year in Lexington, Nebraska.

Dr. Leon Galinsky, who has been the full-time director of the Tuberculosis Service at Broadlawns-Polk County Hospital since February, 1946, has opened an office for the treatment of diseases of the chest in the Bankers Trust Building in downtown Des Moines. He will continue to work part time at Broadlawns.

Dr. Harry G. Decker, a Des Moines neurosurgeon, has been made director of professional services at the VA Hospital there, replacing **Dr. Ivan H. Sheeler,** who left four months ago to become post physician at the Marshalltown Soldiers' Home.

Dr. Sidney Brody, an Ottumwa surgeon, underwent a gallbladder operation at Mercy Hospital there, on September 30.

On September 28, **Dr. E. H. Stumme** held open house at his new office building in Denver, Iowa. It contains a suite for another physician besides himself, rooms for a pharmacy and a suite for a dentist. He said he intends to find someone to practice with him within the next year.

Early in October, a number of Des Moines physicians and their wives held a round of parties for **Dr. and Mrs. Arthur G. Lueck,** who were leaving the city to make their home in Florida. Dr. Lueck's sub-specialty is diabetes.

Dr. W. D. Paul, professor of physical medicine at S.U.I., was one of 10 American physicians who inspected spas and health resorts in Germany during October. They evaluated hydrotherapy technics and other rehabilitative methods that are in use there.

At the October 14 meeting of the Des Moines County Medical Society, held at the Union Hotel in Burlington, **Drs. F. Donald Winter** and **George W. Changus** presented the scientific program.

Dr. R. S. Gerard, president of the Black Hawk County Medical Society, found it necessary on October 1 to spike a rumor that three recent perinatal deaths at Waterloo hospitals had been caused

Doctor . .

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We surveyed the field among professional people and found the features you wanted most of all in your protection plans were—

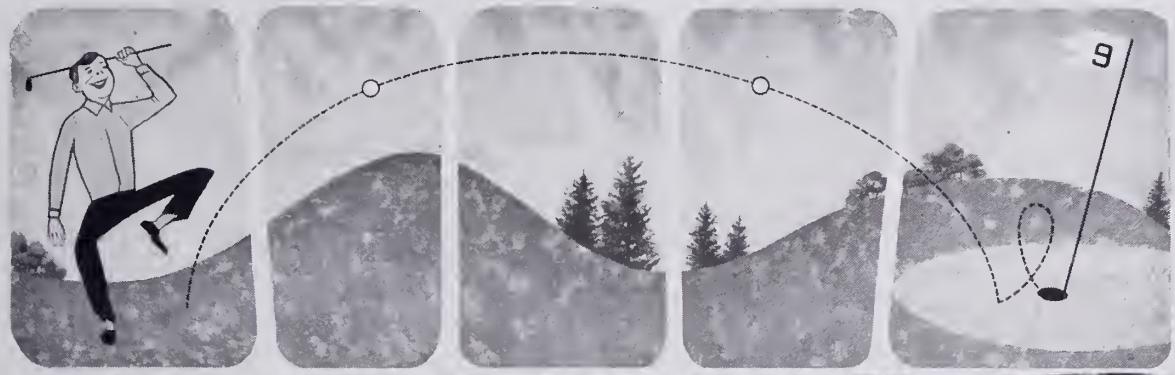
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- effective for 6 hours or longer • promotes expectoration
- rarely constipates • cherry-flavored

Each teaspoonful (5 cc.) contains:

Hycodan®		
Dihydrocodeinone Bitartrate (Warning: May be habit-forming)	5 mg.	6.5 mg.
Homatropine Methylbromide	1.5 mg.	
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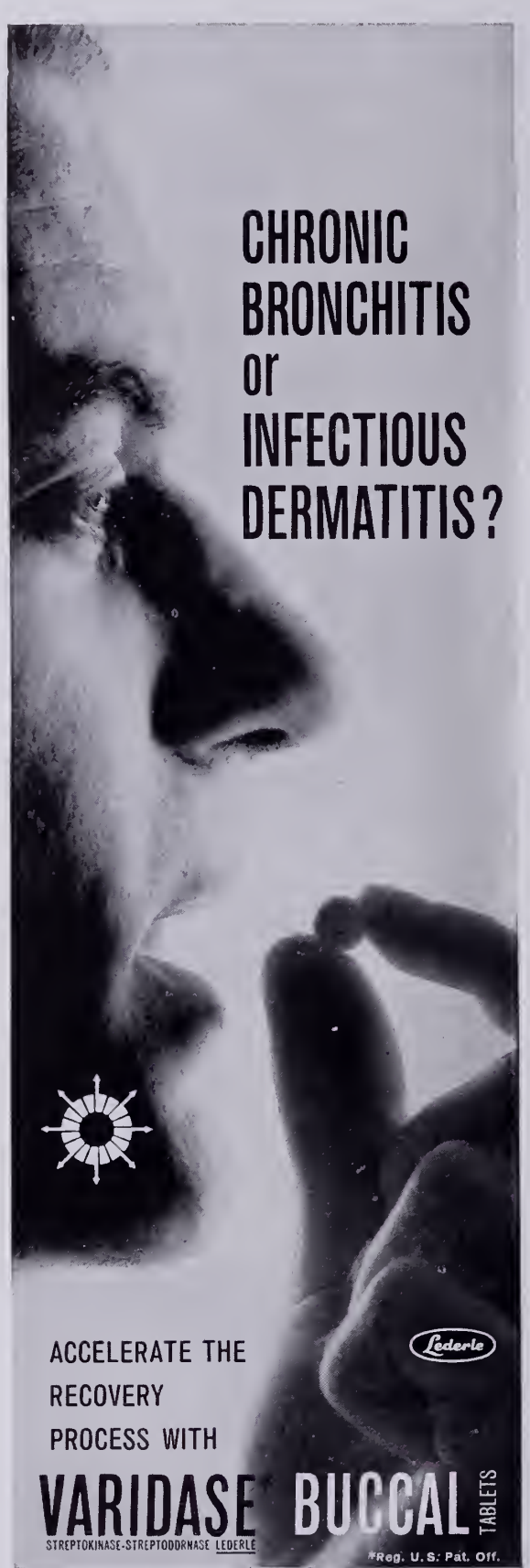
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by Staphylococci. The infants died, he said, from quite separate and unrelated causes, none of which was a bacterial infection. The rumor appears to have been prompted by the establishment, in Waterloo, of the hospital visiting regulations that had been proposed by the State Department of Health and which are to be found on pages 576-577 of the October JOURNAL.

Dr. Everett M. George, chairman of the medical advisory board of United Cerebral Palsy of Iowa, has announced that the board is to consist of **Drs. Walter D. Abbott,** of Des Moines; **Frank Ober,** of Burlington; **Arthur H. Downing,** of Des Moines; **Arch O'Donohue,** of Sioux City; **Everett Nitzke,** of Des Moines; **Leo J. Miltner,** of Davenport; **Lee Martin,** of Council Bluffs; **Herbert C. Merillat,** of Des Moines; **Richard B. Leander,** of Council Bluffs; and **Stephan Fox,** of Ottumwa.

In response to a written complaint about a delay in the readmission of a cancer patient to Broadlawns-Polk County Hospital, **Dr. Allan B. Phillips,** president of the Polk County Medical Society, said, "A family often is so extremely concerned about a loved one that practical and realistic procedures seem inadequate."

In forwarding the complaint, County Supervisor **Orville E. Armstrong** had suggested a meeting of county supervisors, doctors and hospital trustees for a general discussion of Broadlawns policies and procedures, despite the fact that the county supervisors have no authority in the management of the Hospital.

Dr. Manly Michaelson, who began practice at Lytton five or six months ago, moved to Bellevue on October 12.

Addressing the annual conference of the Iowa Welfare Association, in Des Moines on September 30, **Dr. J. O. Cromwell,** director of state mental institutions, predicted that the patient load of the hospitals under his charge will rise from 5,000 to 7,000 or 8,000 within a short time. For that reason, he said, patients must be returned to their home counties as quickly as possible.

The State Board of Control is asking that combined appropriations for the institutions be increased from $11,024,852 to $17,134,535 per year. The hospital administrators had asked for a total of $23,908,720. Admission figures have increased from 2,199 in 1949 to 5,459 last year, but the average hospitalization has decreased from about three years to less than one year in the same period.

Dr. E. J. Voigt, of Burlington, suffered a mild stroke at his home on September 19.

Dr. Raymond R. Rembolt, director of the Hospital for Severely Handicapped Children at S.U.I., attended a governors' conference of Optimists International, in St. Louis on September 20-21. He is one of the organization's four directors.



the chill

the sneeze

the cough

the aches

the fever

in the common cold

and other upper respiratory infections . . .

the only such preparation to contain penicillin V to curb bacterial complications . . .

action { • **antibacterial** • **analgesic** • **antipyretic** • **antihistaminic** • **mood-stimulating**

Supplied: Capsules, vials of 36. Each capsule contains: penicillin V (100,000 units), 62.5 mg.; salicylamide, 194 mg.; promethazine HCl, 6.25 mg.; phenacetin, 130 mg.; mephentermine sulfate, 3 mg.

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At the annual fall meeting of the Page County Medical Society, held in Shenandoah during September, **Dr. Paul Lipscomb, Dr. Frank Maher** and **Dr. Norman Hepper,** all of the Mayo Clinic, were the guest speakers. Their topics, respectively, were "Acute Injuries of the Hand," "The Artificial Kidney" and "Fungus Diseases of the Chest." The program committee consisted of **Dr. C. H. Flynn,** of Clarinda, chairman, and **Drs. Harold Henstorf** and **J. R. Eisenach,** of Shenandoah.

Dr. Arthur Steindler, of Iowa City, professor emeritus of orthopedic surgery at S.U.I., was installed as a vice-president of the U. S. Section of the International College of Surgeons at a meeting in Chicago on September 26.

More than 100 northwest Iowa physicians were invited to Spencer for a meeting on September 25, at which four Iowa City authorities spoke on current research in heart disease. The lecturers were **Dr. Mark Armstrong,** a clinical professor of internal medicine, and **Dr. William Anderson,** an instructor in pediatrics, both from S.U.I., **Dr. Horace Korns,** a private practitioner of cardiology, and **Dr. William Connor,** an instructor in internal medicine. The sponsoring organizations were the Iowa Heart Association and the Clay County Medical Society.

Speaking at the district meeting of obstetricians and gynecologists in Des Moines on September 19, **Dr. Madelene M. Donnelly,** director of the Maternal and Child Health Division of the Iowa State Department of Health, quoted some fairly recent statistics on Iowa births. In 1952, she said, one fourth of the newborn infants were first children, 30 per cent were second babies, and 22 per cent were fourth babies or higher. By 1955, second babies made up only 26 per cent of the total, but 27 per cent were in fourth position or higher. Since 1955, she said, there have been indications that the larger families are once more on the decline.

Dr. George H. Powers, of Shenandoah, showed samples of his submarine color photography at a Rotary meeting there on September 16. He had taken the pictures while he and his family were vacationing in Mexico and Yucatan last summer, but he said he first became interested in skin diving and underwater picture-taking while stationed on Guam in Navy service.

Dr. Wallace W. McCrory, the new head of the S.U.I. Department of Pediatrics, will address the Linn County Medical Society at the Sheraton-Montrose Hotel, in Cedar Rapids, on November 13. His topic will be "Management of Children with Nephritis or Nephrosis." The meeting will begin with a 6:00 p.m. dinner.

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The two AMA films "The Medical Witness" and "The Doctor Defendant" were shown at an annual joint meeting of physicians and lawyers in the Hotel Chieftain, at Council Bluffs, on September 17.

At the annual meeting of the Iowa State Coroners Association, at the Kirkwood Hotel, Des Moines, on September 24, **Mr. Kenneth F. Boughton,** a Britt funeral director, was elected president of the organization; **Dr. George C. McGinnis,** of Fort Madison, was made first vice-president; **Dr. George D. Callahan,** of Iowa City, was elected second vice-president; and **Dr. J. Lawrence Cochran,** of Carroll, was chosen as secretary-treasurer.

Mr. Boughton declared, "The coroners' law is archaic, and it should be modernized to meet current conditions." In subsequent remarks, he deplored the fact that 46 of the 99 coroners in the state are not physicians, but are newspapermen, plumbers, garagemen and undertakers.

At the postgraduate course in urology at S.U.I. on September 26 and 27, the speakers included **Dr. John S. Greenleaf,** a private practitioner of urology in Iowa City; **Dr. Perry Hudson,** associate professor of urology at Columbia University; and the following S.U.I. faculty members: **Dr. R. H. Flocks,** head of the Department of Urology; **Dr. W. W. McCrory,** head of the Department of Pediatrics; **Dr. R. G. Bunge,** professor of urology; **Dr. D. A. Culp,** associate professor of urology; **Dr. Hans Kronwetter,** associate in urology; and **Dr. James Bradbury,** professor of obstetrics and gynecology.

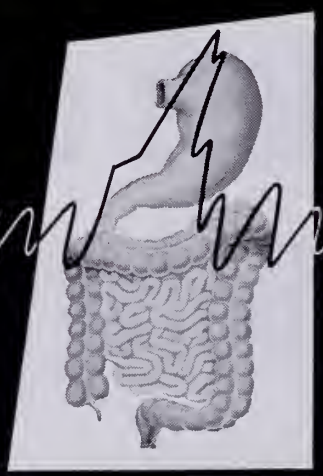
Dr. C. W. Seibert, of Waterloo, was nominated for the post of district chairman of the American College of Obstetricians and Gynecologists for Iowa, Nebraska, North and South Dakota, Minnesota and Wisconsin, at the group's meeting in Des Moines in mid-September. The election will take place at the national meeting in Atlantic City next April.

Dr. John Gustafson, a Des Moines pediatrician and cardiologist, lectured and showed a film on heart disease at a public meeting in Panora on September 24.

During the fifteenth annual meeting of the American Medical Writers Association, in Chicago on September 26, **Dr. William B. Bean,** head of internal medicine, and **Dr. D. M. Lierle,** head of otolaryngology at S.U.I., were inducted as fellows.

Dr. and Mrs. Lee Forrest Hill, of Des Moines, returned on September 24 from a tour of England and continental Europe.

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American Board Review Course, Two Weeks, April 6
Blood Vessel Surgery, One Week, March 2

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, February 9
Vaginal Approach to Pelvic Surgery, One Week, November 17, February 2
General & Surgical Obstetrics, Two Weeks, February 23

MEDICINE—Electrocardiography, Two-Week Basic Course, March 16
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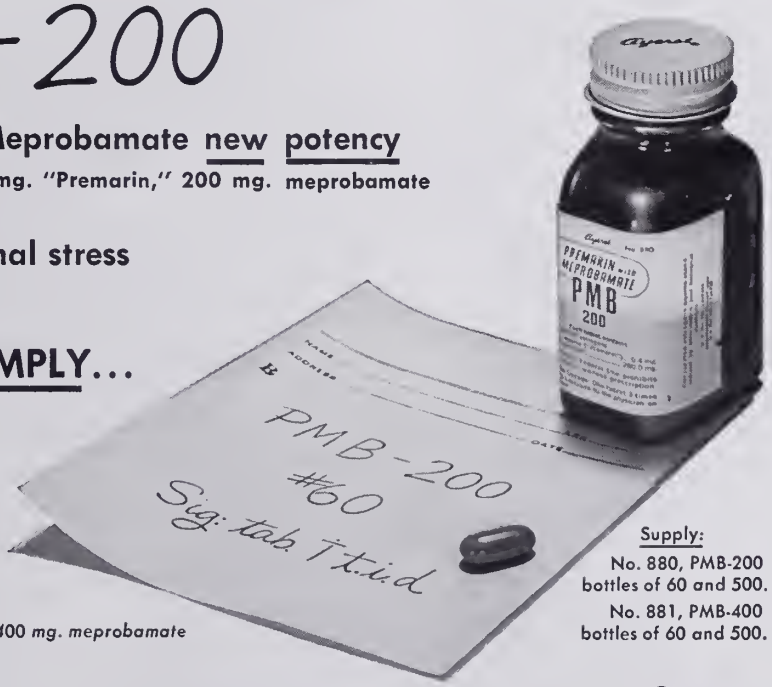
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REFERENCES: 1. Carlozzi, M.: Ant. Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Ant. Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and Leukemia. Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Ant. Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Ant. Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:*395, March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:*504, Dec. 1957.*

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Dr. Wayne W. Sands, a Des Moines radiologist, recently became the second Iowan to earn the title of Life Master from the American Contract Bridge League, during the Mid-American and Canadian Regional Tournament, in Fargo.

Dr. Charles Greenwald, a radiologist who took his specialty training at the Cleveland Clinic and is practicing with **Dr. G. M. Wyatt,** in Iowa City, has arranged to do the x-ray work of the Marengo Memorial Hospital.

Dr. James H. Turner, a 1957 graduate of the S.U.I. College of Medicine who finished his internship at a San Diego hospital last July, joined **Drs. Jack N. Morgan** and **James H. Dunlevy** in practice at Fairfield on September 17.

Dr. Hans Zellweger, a pediatrician on the staff of the S.U.I. College of Medicine, addressed a public meeting in Iowa City on September 23, on the treatment of mental retardation in other countries. He received his medical training in Switzerland, in Lebanon and in Africa, in the latter of which places he worked with **Dr. Albert Schweitzer.** The meeting was sponsored by the Johnson County Association for Retarded Children.

The October 15 dinner meeting of the Polk County Medical Society was held at the John



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Deere Des Moines Works, north of the city, and was preceded by a conducted tour of the plant. The speaker of the evening was **Dr. Donald Ross,** an associate professor of psychiatry at the University of Cincinnati, and his topic was "Some Approaches to the Maintenance of Mental Health Among People at Work."

At the meeting on November 19, which will be held in the Savery Hotel, **Dr. Henry Raphael Gold,** of New York City, will speak on "Psychiatry and the World of Faith."

The Polk County Medical Society has received membership applications from two physicians, one of them new to Des Moines, whom the JOURNAL hasn't previously mentioned. **Dr. Albert J. Breucken,** the assistant chief of laboratory services at the Des Moines VA Hospital, holds an M.D. from the University of Pittsburgh, took his residency training in pathology at the VA Hospital in Aspinwall, Pennsylvania, worked for six months in Fort Dodge in 1952-1953, and worked from 1953 to 1955 in Parkersburg, West Virginia, before returning to Iowa.

Dr. Donald C. Young, a 1955 graduate of the S.U.I. College of Medicine who has been in Navy service in the Philippines, has joined **Drs. Royal S.** and **Ellen Ferengul Anspach,** and **Dr. James H. Dickens** at 2825 Hubbell Boulevard, in Des Moines.

At the Polk County Medical Society's fall party, at the Des Moines Golf and Country Club on September 19, **Drs. Stewart O. Olson, Richard E. Paul, Harold E. Resinger** and **John E. Sullivan,** at various times, borrowed musical instruments and joined **Speck Redd's** dance band. They showed skill at improvisation.

Dr. James A. Reyniers, a research professor of bacteriology and the director of the Lobund Institute at Notre Dame University, will address a combined meeting of the Library, Study and Forum medical clubs on November 17 at the Des Moines Club.

Drs. William deGravelles and **Marlin B. Ewing,** graduates of the Institute of Physical Medicine and Rehabilitation at Bellevue Hospital, New York City, are to head the physiatry service at the 120-bed Younker Memorial Rehabilitation Center that is to open early next year as a division of Iowa Methodist Hospital, Des Moines.

At the North Central Medical Conference, in Minneapolis on October 11 and 12, a Sioux Falls attorney, **Mr. John Zimmer,** described a new cult that he said has taken $3,000,000 from gullible laymen in his state during the past year. Calling themselves "reflexologists," they claim that they can treat virtually every entity in the catalog of human ailments by massaging or prodding areas on the soles of patients' feet. Indeed, they pretend to believe that through each of various nerve-endings on the sole of one or the other of the feet.

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they can apply therapy for the malfunction of a particular organ or organ-system. One of the self-styled healers, Mr. Zimmer reported, has admitted to an income of $30,000 last year. Several of them are now being prosecuted.

Dr. Everett M. George, a Des Moines orthopedic surgeon and the editor of the JOURNAL, was given a distinguished service award at the recent annual meeting of the Polk County Society for Crippled Children and Adults.

The new members of the organization's board of directors include **Dr. John T. Bakody,** a neurosurgeon, and **Dr. Marvin H. Dubansky,** an orthopedic surgeon.

Dr. William M. Sproul, a past-president of the Iowa Academy of General Practice, has moved from Des Moines to California, to work at the student health service of San Jose State College.

Dr. Byron Merkel, a Des Moines ear, nose and throat specialist, was elected vice-president of the Iowa Wing of the National Air Force Association, and **Dr. Harlan Johnston,** plant physician at the John Deere Des Moines Works, was made commander of the Des Moines Squadron of NAFA, at recent meetings of those groups.

Dr. Hermann M. Burian, of the S.U.I. Department of Ophthalmology, has been asked by the U. S. State Department to lecture for two months in Lebanon.

A medical bag containing a small vial of a narcotic and instruments valued at $150 were stolen from a car belonging to **Dr. Emmett Mathiasen,** in Council Bluffs on October 5. The thief broke a window in order to unlock one of the car doors.

The annual meeting of the Pocahontas County Medical Society was held on September 18 at Babcock Beach Resort, on Lake Okoboji. In the afternoon, the guest speakers **Drs. Jack Whisnant** and **Tony Bianco,** of the Mayo Clinic, presented discussions on "The Treatment of Convulsive Disorders" and "Automobile Accidents," and in the evening there was a fish fry and a chicken dinner.

Dr. George E. Bartlett, of New Sharon, moved his practice from his office building to his home on September 22. He has worked in that community for about 43 years.

On September 9 at the Newton Clinic, a new chapter of the Iowa Association of Medical Assistants was organized for the physicians' employees in Jasper and Poweshiek Counties.

At its annual fall meeting, held this year at Lake Okoboji in mid-September, the Iowa Academy of Surgery was host to the officers and about 15 of the members of the Minnesota Surgical Society.

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The new members of the Iowa organization who were elected at that time include **Drs. Charles C. Edwards** and **Donald J. Lulu**, of Des Moines, and **Dr. Paul C. Cunnick**, of Davenport.

The following members presented papers: **Drs. R. L. Lawton, J. A. Buckwalter, Robert Tidrick, E. S. Brintnall, M. S. Lawrence, R. C. Hickey** and **E. E. Mason**, all of Iowa City, **Dr. G. H. Pester**, of Council Bluffs, **Dr. M. J. Brown**, of Davenport, and **Drs. D. F. Crowley, Jr.**, and **A. N. Smith**, both of Des Moines.

Dr. A. J. Herlitzka, who worked with Surgical Associates in Mason City in 1952-1953, has returned to that group after taking a year of residency at Vanderbilt University and the VA Hospital in Nashville, and spending the rest of the interval at the University of Wisconsin—1½ years of it in the study of thoracic and cardiovascular surgery.

Dr. Newton B. White, who will work with Surgical Associates until he begins a surgical residency in Iowa City next July, received his M.D. degree at the University of Cincinnati in 1957 and interned at Cook County Hospital, Chicago.

At the November 4 meeting of the Scott County Medical Society, in the Outing Club at Davenport, **Dr. Richard E. Symmonds**, of the Mayo Clinic, will present a paper on "The Treatment of Stress Incontinence." The annual election of officers will also take place at that time.

Dr. Ian Maclean Smith, an assistant professor of internal medicine at S.U.I., was one of the guest speakers at the recent Interprofessional Seminar on Diseases of Animals Transmissible to Man, at the University of Nebraska College of Medicine. His topic was "Staphylococcal Disease."

At the meeting of the Missouri Academy of General Practice that was held in St. Louis during October, one of the speakers was **Dr. Paul M. Seebohm**, an associate professor of internal medicine at S.U.I. He spoke on "Office Evaluation of Chronic Lung Disease."

Dr. Robert C. Hardin, a professor of internal medicine at S.U.I., has been appointed to the Committee on Training Grants of the Institute of Arthritis and Metabolic Diseases.

At the recent meeting of the Midwest Section of the American College of Physicians, in Milwaukee, **Dr. William Horsley**, a research fellow, and **Dr. James A. Clifton**, an associate professor, both in the S.U.I. Department of Internal Medicine, presented a paper entitled "Plasma Optical Density as a Screening Test for Malabsorption."

Dr. L. E. January, a professor of internal medicine, and **Dr. Walter M. Kirkendall**, an associate professor in the same department, spoke in San

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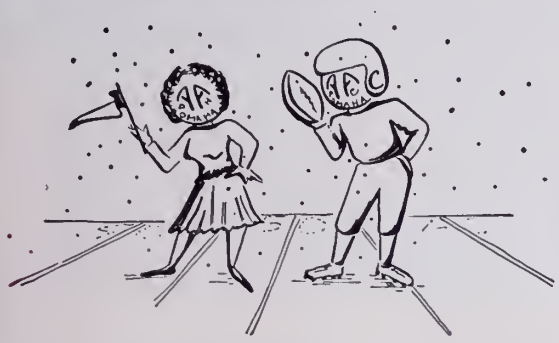
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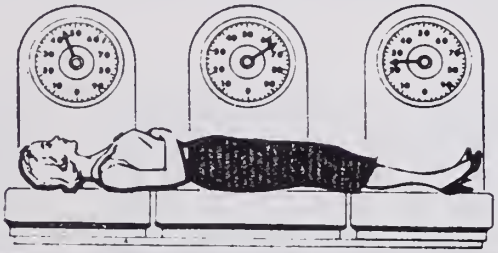
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Francisco in late October before the annual meeting of the American Heart Association. Dr. January's topic was "Rehabilitation of Farmers With Heart Disease," and Dr. Kirkendall spoke on "Chlorothiezide" and "Hemodynamic Effects of Trimethidinium." Dr. January, in addition, was co-chairman of a panel that discussed membership policies for the heart group.

A month previously, Dr. January had participated in a Farm Cardiac Seminar at Purdue University, in Lafayette, Indiana. Dr. Kirkendall recently addressed a meeting of the Nebraska Academy of General Practice on "Edema and Heart Disease."

Dr. William B. Bean, professor and head of internal medicine at S.U.I., has been appointed medical editor for STEADMAN'S MEDICAL DICTIONARY. In recent weeks, he has addressed the American Clinical and Climatological Association, in Cooperstown, New York, and participated in a medical symposium in West Virginia.

Dr. George N. Bedell, as assistant professor, and **Dr. William R. Wilson,** a research associate, both in the Department of Internal Medicine at S.U.I., presented a paper entitled "The Pulmonary Abnormalities in Myxedema" in Chicago during October at the meeting of the Midwestern Section of the American Foundation for Clinical Research.

The National Institutes of Health have renewed Dr. Bedell's grant for his research study called "Study of Pulmonary Diffusing Capacity in Congenital Heart Disease."

At the San Francisco meeting of the American Society for the Study of Arteriosclerosis, late in October, **Drs. William E. Connor** and **John W. Eckstein,** assistant professors of internal medicine at S.U.I., presented a paper entitled "Removal of Lipoprotein Lipase From the Blood by the Normal and Diseased Liver."

DEATHS

Dr. Bertice Alvin Isenberg, 76, died at the Veterans Administration Hospital in Des Moines on September 20. Last April, he celebrated the fiftieth anniversary of his entry into medical practice, and he had spent 38 of them in Lohrville.

Dr. Francis Rufus Sparks, 76, a surgeon and a Life Member of the Iowa State Medical Society, died on September 25 at Mercy Hospital, in Waverly, following a stroke. He had practiced there for 43 years.

Dr. Orin C. Grube, 26, a graduate of the S.U.I. College of Medicine who finished his internship at Broadlawns-Polk County General Hospital, Des Moines, last July, and was to have become a staff member at the S.U.I. Student Health Service this fall, died at University Hospitals, Iowa City, on September 19.

Dr. George E. Rinker, 81, a Life Member of the Iowa State Medical Society who had practiced at Oto for many years, died in a Sioux City hospital

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on September 16, a few days after a fall in which he broke a shoulder.

Dr. Charles L. Patterson, 88, who had practiced medicine in Westside for 58 years, died at the Veterans Administration Hospital in Omaha on September 14. He had been critically ill for two months.

CARDIAC PATIENTS PROBABLY SHOULD RESUME WORK

In lectures he gave recently at the University of Vermont, Dr. Leonard J. Goldwater announced, "It is now definitely known that the time-honored advice to cardiacs to 'take it easy' may do more harm than good." Dr. Goldwater was for many years director of the Cardiac Work Classification Unit at Bellevue Hospital, New York City, and he is now professor of occupational medicine in the Columbia University School of Public Health Administration. He went on to say that "fear on the part of a patient that dire consequences may follow his resumption of employment can be more disabling than the underlying lesion in the heart. Overprotective families often aggravate the situation, and the over-cautious physician does little to help. The only hope lies in the education of all concerned."

Reporting on his 15-year study at Bellevue, he said that of a total of 952 patients, five were followed for 14 years; 23 were followed for 10 years; 196 were followed for five years; 400 were followed for two years; and 515 were followed for one year. A majority of them were employed during all or most of the observation period. Of those employed full time, 78 per cent showed no appreciable change; 12 per cent improved; and 10 per cent became worse. Of the patients who were unemployed at the end of the first year, 62 per cent were unchanged; 27 per cent were worse; and 11 per cent were improved. "These observations," he declared, "show that employment *per se* does not appear to have an adverse effect on the course of heart disease."

Another of his studies, based upon the case histories of 580 cardiac patients, provided the basis for the following of his statements:

1. Many cardiacs can return to their original jobs following such cardiovascular episodes as myocardial infarction, congestive failure, rheumatic activity, auricular fibrillation or severe angina.

2. Episodes of the type just listed may not be any more frequent in the employed than in the unemployed cardiac.

Dr. Goldwater said that long-range follow-up studies of a controlled type are still needed, and that another gap in knowledge is in the field of tests for physical capacity to work. "There is still no practical and reliable method for measuring objectively a patient's ability to meet the physical demands of a specific job," he concluded.

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ANESTHESIOLOGISTS MOVE THEIR MEETING

The annual meeting of the American Society of Anesthesiologists that was to have been held in Pittsburgh has been moved because of a hotel strike there. It has now been rescheduled for The Palmer House, Chicago, November 17-21.

The major scientific program, refresher courses and the College oral examination have been cancelled. A one-day scientific program will be presented on November 20, but the program will not be available in advance. The ASA House of Delegates will meet on November 19 and 21, and its reference committee hearings will take place on November 20.

Only a limited number of hotel rooms will be available, but the office of the ASA (188 West Randolph Street, Chicago 1) will undertake to secure reservations for members who apply no later than November 7.

MID-ATLANTIC ICS MEETING

The Mid-Atlantic Regional Meeting of the International College of Surgeons, U. S. Section, will be held at The Homestead, Hot Springs, Virginia, November 17-18.

The scientific program will consist of 10 papers, two panels and a sound movie in color. The speakers will be Drs. Lowrain E. McCrea, Theodore R. Fetter and Albert Seltzer, of Philadelphia; Dr. Russell Buxton, of Newport News; Drs. R. R. Raub, and Henry F. Warden, of Bluefield, Virginia; Dr. Francis H. McGovern, of Danville, Virginia; Dr. Elbyrne G. Gill, of Roanoke; Dr. J. L. Thompson, of Wheeling; and Dr. A. H. Letton, Jr., of Atlanta.

CONFERENCE ON RESISTANT BACTERIA

A world-wide picture of the clinical problem of bacterial resistance and methods of dealing with it will be presented at the International Colloquium on Resistant Infections, at the Plaza Hotel, New York City, November 20 and 21. The conference is being sponsored by the U. S. Committee of the World Medical Association and by Eaton Laboratories, a pharmaceutical manufacturer. Physicians from Argentina, Canada, England, France, Germany, Puerto Rico, Sweden and the United States will describe the results of their investigations and their experiences in treating resistant infections. Particular emphasis will be placed on the control of staphylococcal infections in hospitals.

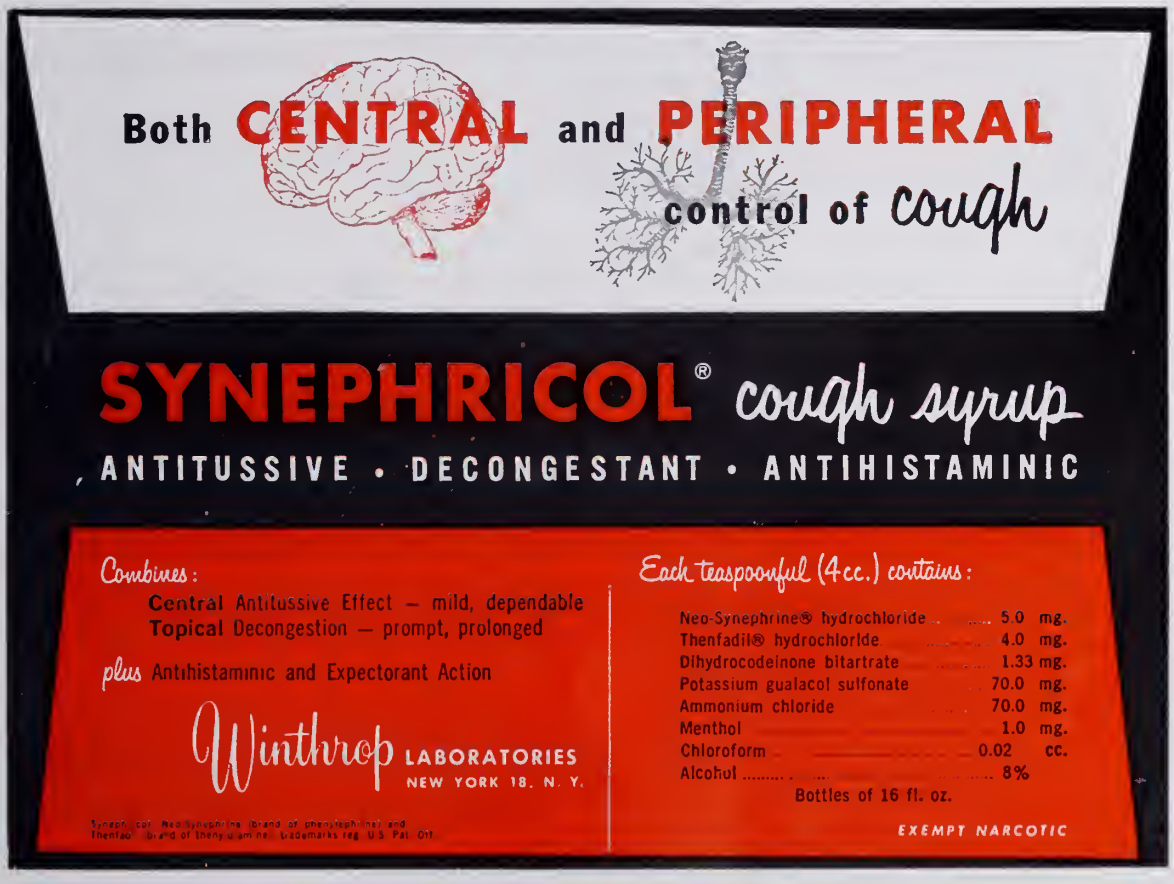
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1. Welsh, A. L., and Ede, M.: J.A.M.A. *166*:158, 1958.
2. Bleiberg, J.: J.M. Soc. New Jersey *53*:37, 1956.
3. Abrams, B. P., and Shaw, C.: Clin. Med. *3*:839, 1956.
4. Bleiberg, J.: Am. Practitioner *8*:1404, 1957.
5. Clyman, S. G.: Postgrad. Med. *21*:309, 1957.



SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa
Thursday at 1:15 p.m.
"THE HEART OF AMERICA"

November 6 . Surgery for Heart Valve Disease
November 13 ..... Stresses and Strains
November 20 ..... Rehabilitation
November 27 ..... Protecting the Good Heart

WSUI—Iowa City, Iowa
Monday at 2:30 p.m.
"SUPERSTITION AND SCIENCE"

November 3 ..... Digitalis
November 10 ..... Fertility
November 17 ..... Scurvy
November 24 ..... Ephedrine

TELEVISION

KQTV—Fort Dodge, Iowa
Wednesday at 7:00 p.m.

November 5 ..... Breast Biopsy
November 12 ..... Sinus
November 19 ..... Poison Information Center
November 26 ..... The Doctor and the Minister

KCRG-TV—Cedar Rapids, Iowa
Sunday at 1:00 p.m.

November 2 ..... Feeding Problems
November 9 ..... Mentally Retarded Child
November 16 ..... Breast Biopsy
November 23 ..... Sinus
November 30 ..... Poison Information Center

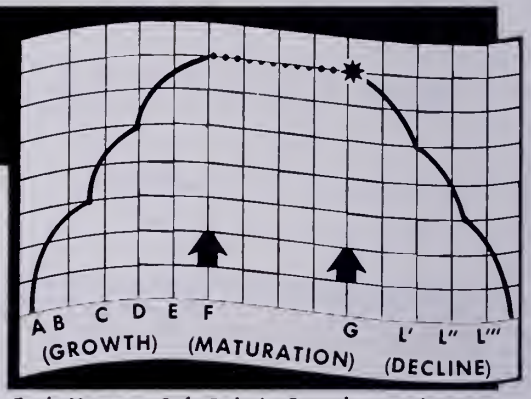
KVTV—Sioux City, Iowa
Sunday at 1:00 p.m.

November 2 . Good Grooming and Good Health
November 9 ..... Acne
November 16 ..... Weight Problems
November 23 ..... Posture
November 30 .. Athletics and Physical Education

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*Chappel, C.C., J.A.M.A., 162: 1414, (Dec. 8) 1956

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(Additional Want Ads on page lxxiv)

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THE Journal OF THE IOWA STATE MEDICAL SOCIETY

Blue Shield States Its Case

The Members of the Board (Page 633)

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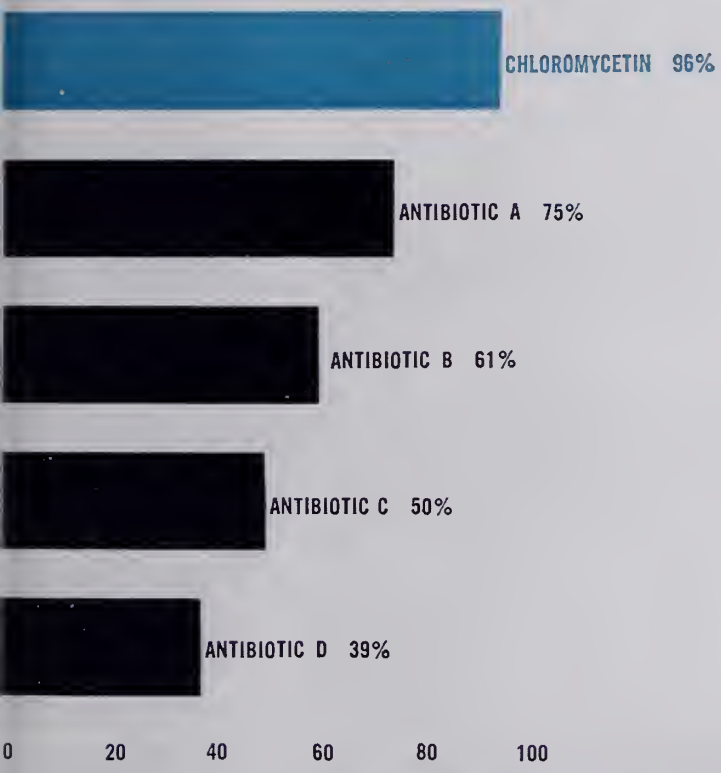
REFERENCES: (1) Wise, R. I.: *J.A.M.A.* 166:1178, 1958. (2) Brown, J. W.: *J.A.M.A.* 166:1185, 1958. (3) Caswell, H. T., *et al.*: *Surg., Gynec. & Obst.* 106:1, 1958. (4) Godfrey, M. E., & Smith, I. M.: *J.A.M.A.* 166:1197, 1958. (5) Waisbren, B. A.: *Wisconsin M. J.* 57:89, 1958. (6) Royer, A., in Welch, H., & Marti-Ibañez, F.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 783. (7) Markham, N. P., & Shott, H. C. W.: *New Zealand M. J.* 57:55, 1958. (8) Blair, J. E., & Carr, M.: *J.A.M.A.* 166:1192, 1958. (9) Horan, J. M.: *Pediatrics* 19:36, 1957. (10) Rawls, C. H.: *Am. Surgeon* 23:1030, 1957. (11) Sarason, E. L., & Bauman, S.: *Surg., Gynec. & Obst.* 105:224, 1957. (12) James, U.: *Brit. J. Clin. Pract.* 11:801, 1957. (13) Turnbull, R. B., Jr.: *J.A.M.A.* 164:756, 1957. (14) Ross, S.; Puig, J. R., & Zaremba, E. A., in Welch, H., & Marti-Ibañez, F.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 803. (15) Leachman, R., & Yow, E. M., in Conn, H. F.: Current Therapy 1958, W. B. Saunders Company, Philadelphia, 1958, p. 51.

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IN VITRO SENSITIVITY OF PATHOGENIC STAPHYLOCOCCI TO CHLOROMYCETIN AND TO FOUR OTHER MAJOR ANTIBIOTICS*



*Adapted from Godfrey & Smith.[1] Staphylococci studied were strains isolated from 28 patients in a general hospital.

Journal of the IOWA STATE MEDICAL SOCIETY

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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

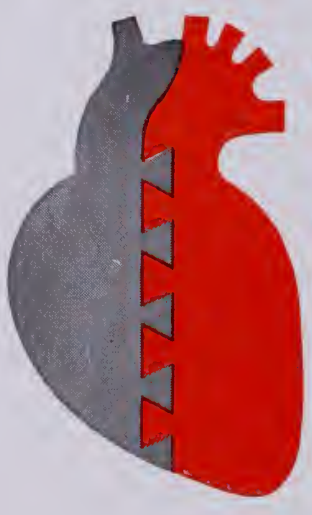
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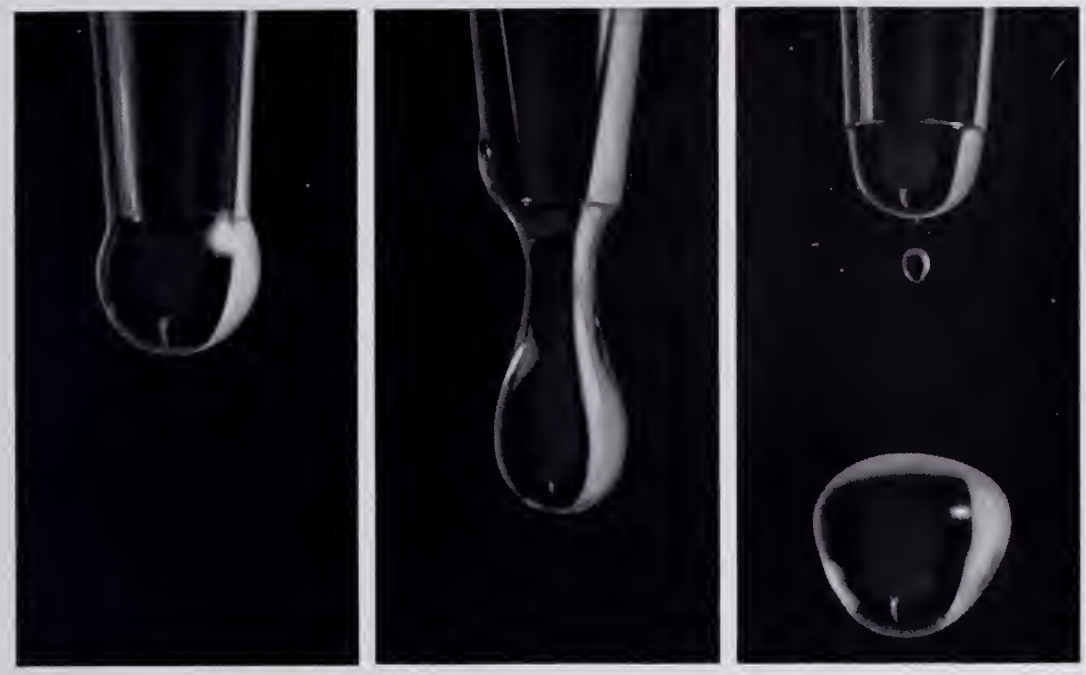
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1. *Friedlander, H. S.: The role of ataraxics in cardiology. Am. J. Card.* **1**:395, *March 1958.*
2. *Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. Angiology* **8**:504, *Dec. 1957.*

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Make new Panalba*

(Pannmycin† Phosphate plus Albamycin**)

your broad-spectrum antibiotic of first resort

effective against more than 30 common pathogens, even including resistant staphylococci.



Available forms:

1. Panalba Capsules, bottles of 16 and 100 capsules. Each capsule contains:

Pannmycin phosphate (tetracycline phosphate complex) equivalent to tetracycline hydrochloride ..... 250 mg.
Albamycin (as novobiocin sodium)...125 mg.

2. Panalba KM †† Flavored Granules. When sufficient water is added to fill the bottle, each teaspoonful (5 cc.) contains:

Pannmycin (tetracycline) equivalent to tetracycline hydrochloride . . ..125 mg.
Albamycin (as novobiocin calcium)..62.5 mg.
Potassium metaphosphate ....100 mg.

Dosage:

Panalba Capsules
Usual adult dosage is 2 capsules q.i.d.

Panalba KM Granules
For the treatment of moderately acute infections in infants and children, the recommended dosage is 1 teaspoonful per 15 to 20 lbs. of body weight per day, administered in 2 to 4 equal doses. Severe or prolonged infections require higher doses. Dosage for adults is 2 to 4 teaspoonfuls 3 or 4 times daily, depending on the type and severity of the infection.

Low Dosage KYNEX* for G.U. Infections

Sulfamethoxypyridazine Lederle



Unusual Antibacterial and Anti-infective Properties—More soluble in acid urine[1] . . . higher and better sustained plasma levels than any other known and useful antibacterial sulfonamide.[2]

Unprecedented Low Dosage—Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy.[2]

Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours.

KYNEX—WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

references:

1 Grieble, H.G., and Jackson, G.G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958

2. Editorial: *New England J. Med.* 258:48-49, 1958.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

*Reg. U. S. Pat. Off.

now—an antibiotic troche that

STOPS COUGH TOO





The *cough control* provided by homarylamine (a non-narcotic antitussive) approximates that of codeine.

Three antibiotics (bacitracin, tyrothricin, neomycin) act in combination against a wide variety of pathogens—with little danger of side reactions.

The anesthetic-analgesic effect of benzocaine brings *soothing relief* to inflamed tissues of mouth and throat.

PENTAZETS now extend the therapeutic usefulness of convenient troche medication. Each pleasant-tasting PENTAZETS troche acts promptly against the most bothersome aspects of mouth and throat irritations.

PRESCRIBE

Pentazets®

antitussive—antibiotic-anesthetic—analgesic troches

MSD MERCK SHARP & DOHME
DIVISION OF MERCK & CO., INC., PHILADELPHIA 1, PA.

Dosage: Three to 5 troches daily for 3 to 5 days.
Supplied: In vials of 12.
PENTAZETS is a trademark of Merck & Co., Inc.

AN AMES
CLINIQUICK
CLINICAL BRIEFS
FOR MODERN PRACTICE



which patients with noncalculous gallbladder disease should undergo surgery?

Essentially those who are not relieved by a prolonged trial period of medical management.
Source—Lichtenstein, M. E.: GP *16*:114 (Oct.) 1957.

for medical, preoperative, postoperative management of biliary disorders

"therapeutic bile"

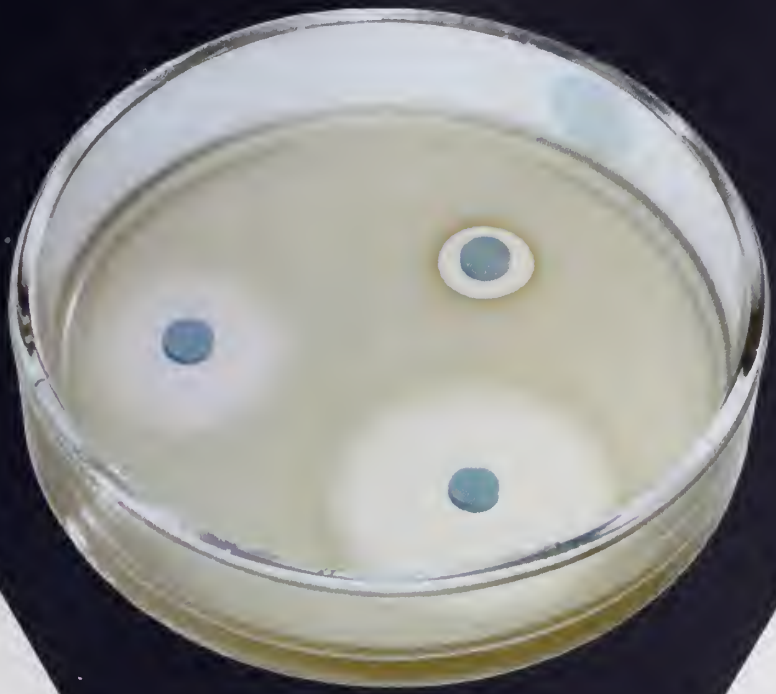
DECHOLIN® and DECHOLIN SODIUM®

corrects biliary stasis

Hydrocholeresis with DECHOLIN produces abundant, thin, free-flowing, therapeutic bile. This flushes thickened bile, mucous plugs and debris from the biliary tract.

AMES COMPANY, INC.
Elkhart, Indiana
Ames Company of Canada Ltd.
Toronto

44758



for
the control
of all
coccal
infections

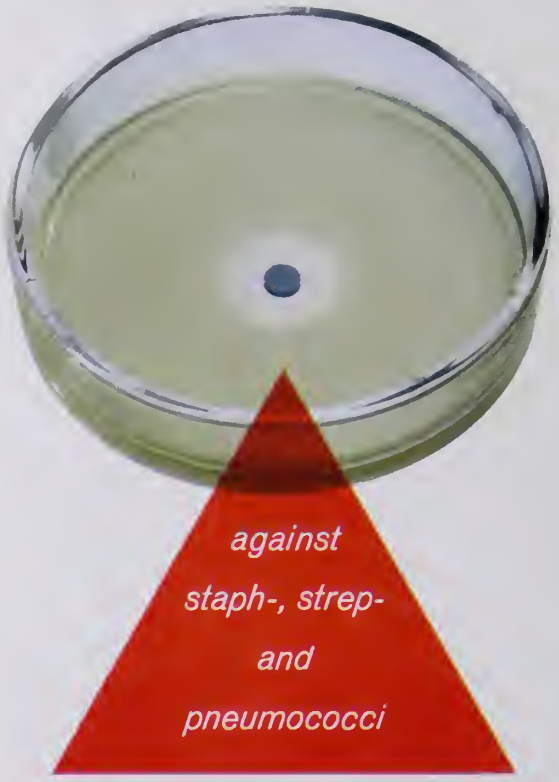
abbott's antibiotic triad



Erythrocin®

stearate

(Erythromycin Stearate, Abbott)



indications:

In infections caused by staphylococci, streptococci (including enterococci) and pneumococci. Also, against organisms that have become resistant to other antibiotics. ERYTHROCIN should be used where patients are allergic to penicillin or other antibacterials.

dosage:

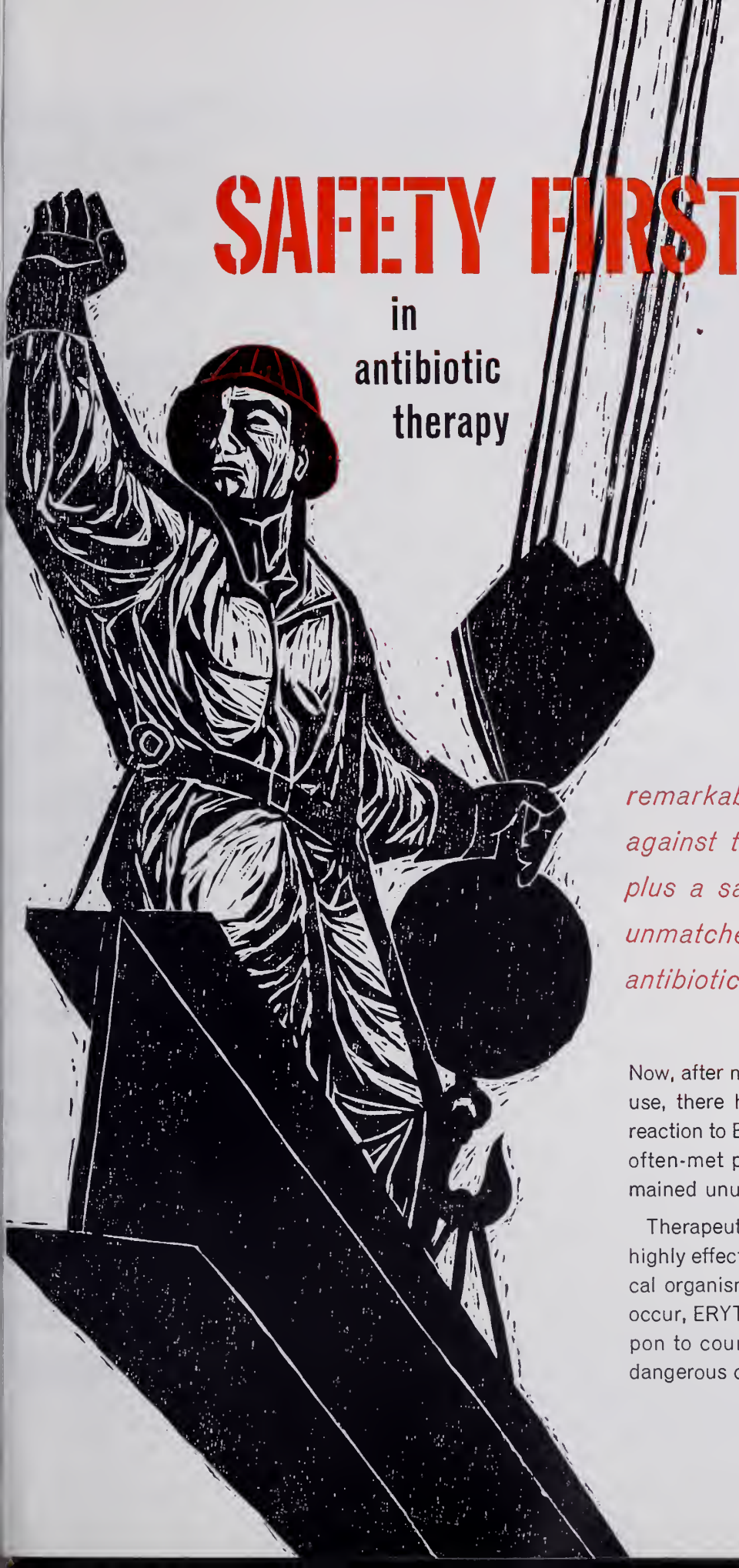
Usual adult dose is 250 mg. every six hours; for severe infections, usual dose is 500 mg. every six hours. Child's dose may be reduced in proportion to body weight.

supplied:

In bottles of 25 and 100 Filmtabs (representing 100 and 250 mg. of ERYTHROCIN activity). Also, in cinnamon-flavored oral suspension; 75-cc. bottles. Each 5-cc. teaspoonful represents 100 mg. of ERYTHROCIN activity.

® Filmtab — Film-sealed tablets, Abbott; pat. applied for.

© 1958, ABBOTT LABORATORIES, NORTH CHICAGO, ILLINOIS



SAFETY FIRST

in antibiotic therapy

remarkable effectiveness against the cocci– plus a safety record unmatched in systemic antibiotic therapy

Now, after more than six years of extensive use, there has not been a single serious reaction to ERYTHROCIN. Additionally, the often-met problem of resistance has remained unusually low with ERYTHROCIN.

Therapeutically, you'll find ERYTHROCIN highly effective against the majority of coccal organisms. Where severe viral attacks occur, ERYTHROCIN may well be the weapon to counteract those dangerous complications.

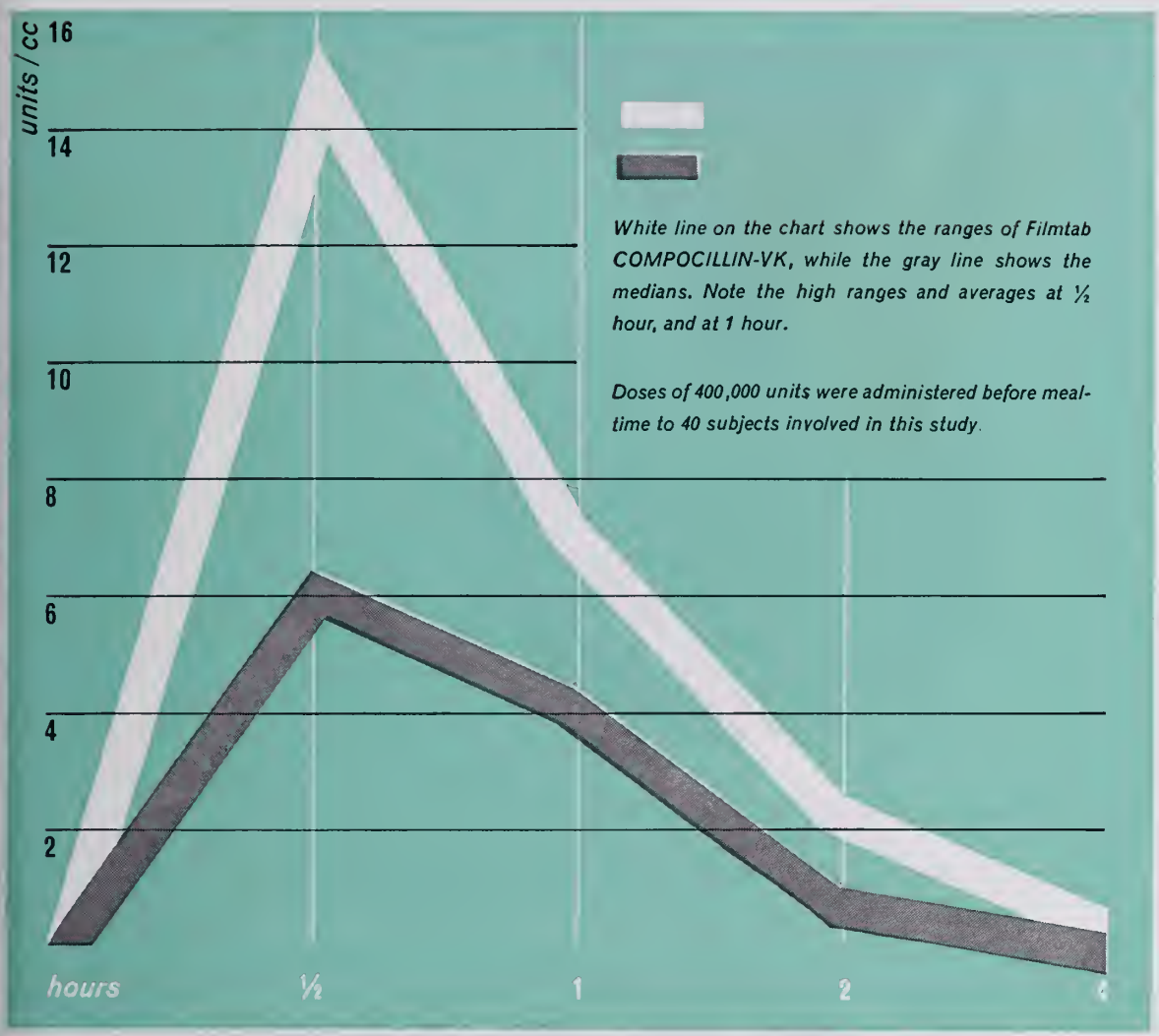
Abbott



the higher blood levels of COMPOCILLIN-VK®

Potassium
Penicillin V

809136



White line on the chart shows the ranges of Filmtab COMPOCILLIN-VK, while the gray line shows the medians. Note the high ranges and averages at ½ hour, and at 1 hour.

Doses of 400,000 units were administered before mealtime to 40 subjects involved in this study.

Now, in both Filmtab and Oral Solution, patients get high penicillin V blood levels with Compocillin-VK. Note the chart. Concentrations are three times higher than an equivalent dose of potassium penicillin G.

Compocillin-VK is indicated whenever you desire oral penicillin therapy. In severe infections, oral penicillin should be supplemented by parenteral therapy to obtain the maximum therapeutic response.

Indications:

Against all organisms sensitive to oral penicillin therapy. For prophylaxis and treatment of complications in viral conditions. And as a prophylaxis in rheumatic fever and rheumatic heart disease.

Dosage:

Depending on the severity of the infection, the usual adult dose is 125 to 250 mg. (200,000 to 400,000 units) every four to six hours. For children, dosage may be reduced in proportion to body weight.

Supplied:

In Filmtabs, representing 125 mg. (200,000 units) of potassium penicillin V, bottles of 50 and 100. In 250 mg. (400,000 units), bottles of 25 and 100.

For Oral Solution, Compocillin-VK comes in dry granules for easy reconstitution with water. Cherry-flavored, the granules come in 40-cc. and 80-cc. bottles. Each 5-cc. teaspoon of solution represents 125 mg. (200,000 units) of potassium penicillin V.

Compocillin-V® Oral Suspension (Ready-Mixed), Hydrabamine Penicillin V, Abbott, comes in 40-cc. and 80-cc. bottles. Each tasty, banana-flavored 5-cc. teaspoonful represents 180 mg. (300,000 units) of penicillin V. At all pharmacies. Abbott



the most effective antibiotic available against staphylococci

CRYSTALLIZED

SPONTIN®

(RISTOCETIN, ABBOTT)

PREPARED FROM PURE CRYSTALS

Provides Outstanding Clinical Effectiveness Against Coccal Infections, Including Resistant Staphylococci and Enterococci[1]

Provides Bactericidal Action Against Coccal Infections[1]

Provides Successful Short-Term Therapy In Endocarditis[2]

812169

Now, after just 12 months, SPONTIN has become an outstanding drug of choice against resistant staphylococci, and in other serious coccal infections.

Six papers presented at the Antibiotics Symposium[1] reported the effectiveness of SPONTIN against resistant staphylococcal infections. Clinical reponses involved enterococcal endocarditis, staphylococcal pneumonias and staphylococcal bacteremias. Many of these patients were going downhill steadily—in spite of treatment by other antibiotics.

Toxicity? Careful attention to dosage recommendations has practically eliminated toxicity and side effects as serious obstacles to therapy. Also, recent improvements have been made in the manufacture of SPONTIN; the drug is now made from pure crystals. A recent report[3] in the Journal of the American Medical Association concluded, "It is our opinion that, if proper precautions are observed, ristocetin is a safe and potent agent to employ in the treatment of staphylococcal infections."

If you do not have the revised literature on this lifesaving antibiotic, please contact your Abbott Representative soon; or write direct to Abbott Laboratories, North Chicago, Illinois.

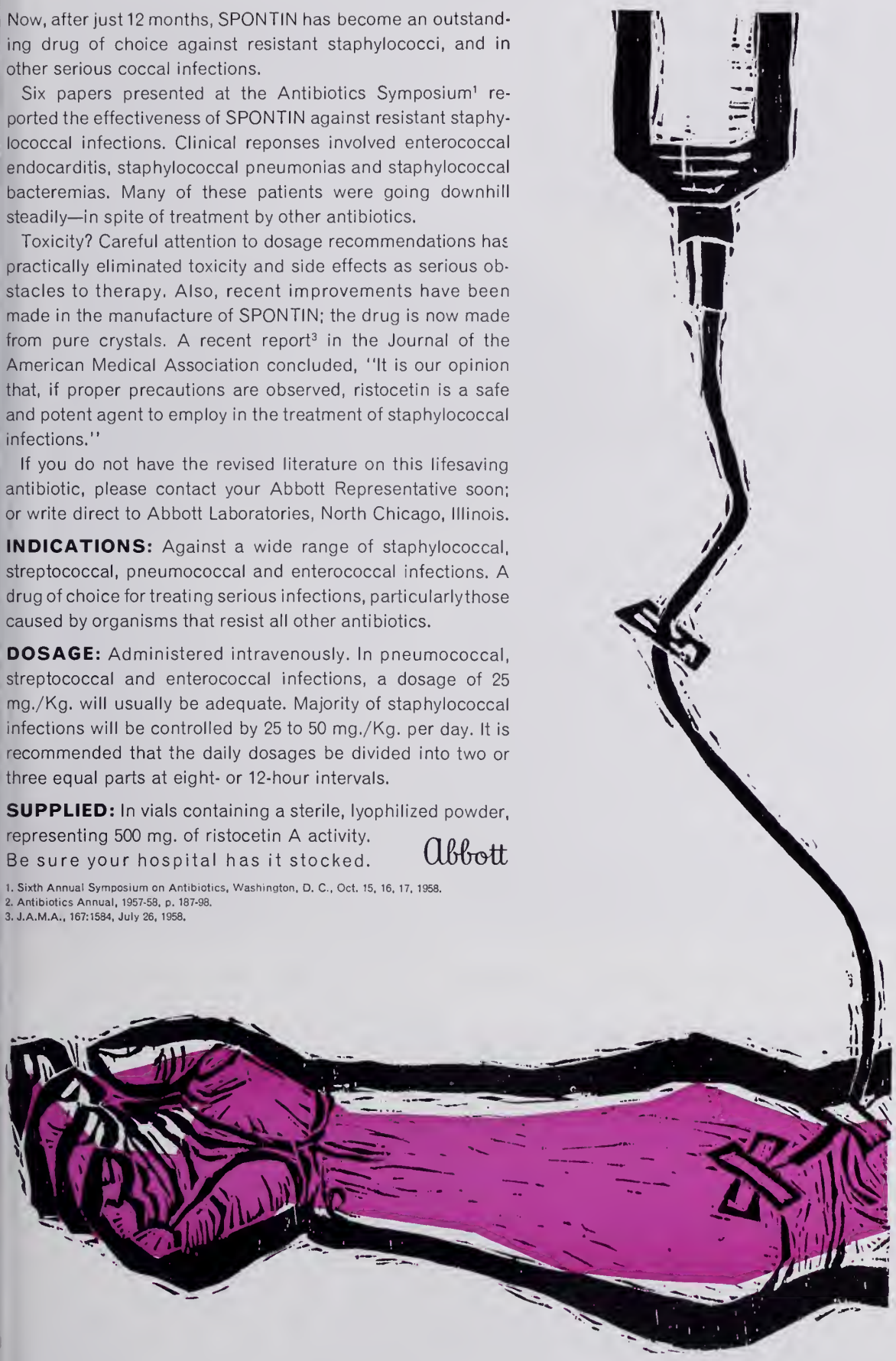
INDICATIONS: Against a wide range of staphylococcal, streptococcal, pneumococcal and enterococcal infections. A drug of choice for treating serious infections, particularly those caused by organisms that resist all other antibiotics.

DOSAGE: Administered intravenously. In pneumococcal, streptococcal and enterococcal infections, a dosage of 25 mg./Kg. will usually be adequate. Majority of staphylococcal infections will be controlled by 25 to 50 mg./Kg. per day. It is recommended that the daily dosages be divided into two or three equal parts at eight- or 12-hour intervals.

SUPPLIED: In vials containing a sterile, lyophilized powder, representing 500 mg. of ristocetin A activity.
Be sure your hospital has it stocked.

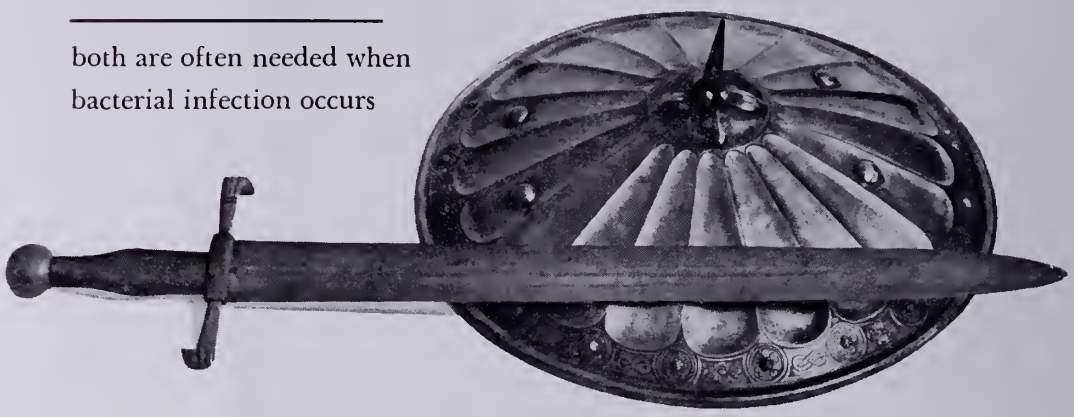
Abbott

1. Sixth Annual Symposium on Antibiotics, Washington, D. C., Oct. 15, 16, 17, 1958.
2. Antibiotics Annual, 1957-58, p. 187-98.
3. J.A.M.A., 167:1584, July 26, 1958.



▪ prompt, aggressive
antibiotic action
▪ a reliable defense against
monilial complications

both are often needed when
bacterial infection occurs



for a direct strike at infection
Mysteclin-V contains tetracycline phosphate complex

It provides a direct strike at all tetracycline-susceptible organisms (most pathogenic bacteria, certain rickettsias, certain large viruses, and Endamoeba histolytica).

It provides the new chemical form of the world's most widely prescribed broad spectrum antibiotic.

It provides unsurpassed initial blood levels — higher and faster than older forms of tetracycline — for the most rapid transport of the antibiotic to the site of infection.

for protection against monilial complications
Mysteclin-V contains Mycostatin

It provides the antifungal antibiotic, first tested and clinically confirmed by Squibb, with specific action against Candida (Monilia) albicans.

It acts to prevent the monilial overgrowth which frequently occurs whenever tetracycline or any other broad spectrum antibiotic is used.

It protects your patient against antibiotic-induced intestinal moniliasis and its complications, including vaginal and anogenital moniliasis, even potentially fatal systemic moniliasis.

MYSTECLIN-V

Squibb Tetracycline Phosphate Complex (Sumycin) and Nystatin (Mycostatin)

Capsules *(250 mg./250,000 u.), bottles of 16 and 100.* Half-strength Capsules *(125 mg./125,000 u.), bottles of 16 and 100.*
Suspension *(125 mg./125,000 u. per 5 cc.) 60 cc. bottles.* Pediatric Drops *(100 mg./100,000 u. per cc.). 10 cc. dropper bottles.*

SQUIBB *Squibb Quality — the Priceless Ingredient*

'MYSTECLIN'®, 'SUMYCIN'®, AND 'MYCOSTATIN'® ARE SQUIBB TRADEMARKS

If you were to examine these patients



could you detect the asthmatic on Medrol*?

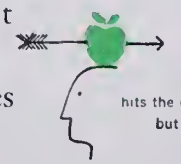
Probably not. Not without a history.

First, because he's more than likely symptom-free.

Second, because he shows none of the disturbing changes in appearance, behavior or metabolism sometimes associated with corticotherapy.

Even your practiced clinical eye would find it difficult to spot someone else's Medrol patient.

But in your own patients, you could see the advantages of Medrol right away. Why not try it?



Medrol hits the **disease,** but spares the **patient**

Upjohn

The Upjohn Company, Kalamazoo, Michigan

*TRADEMARK, REG. U. S. PAT. OFF.— METHYLPREDNISOLONE, UPJOHN



"Much better–thank you, doctor"

Proven in research

1. Highest tetracycline serum levels
2. Most consistently elevated serum levels
3. Safe, physiologic potentiation (with a natural human metabolite)

And now in practice

4. More rapid clinical response
5. Unexcelled toleration

COSA-TETRACYN*

GLUCOSAMINE-POTENTIATED TETRACYCLINE

CAPSULES
(black and white)
250 mg., 125 mg.
(for pediatric or long-term therapy)

ORAL SUSPENSION
(orange-flavored)
125 mg. per tsp. (5 cc.)
2 oz. bottle

NEW! PEDIATRIC DROPS
(orange-flavored) 5 mg. per drop, calibrated dropper, 10 cc. bottle

COSA-TETRASTATIN*

glucosamine-potentiated tetracycline with nystatin

Antibacterial plus added protection against monilial super-infection

CAPSULES (black and pink) 250 mg. Cosa-Tetracyn (with 250,000 u. nystatin)

ORAL SUSPENSION 125 mg. per tsp. (5 cc.) Cosa-Tetracyn (with 125,000 u. nystatin), 2 oz. bottle

COSA-TETRACYDIN*

glucosamine-potentiated tetracycline-analgesic-antihistamine compound

For relief of symptoms and malaise of the common cold and prevention of secondary complications

CAPSULES (black and orange)—each capsule contains: Cosa-Tetracyn 125 mg.; phenacetin 120 mg.; caffeine 30 mg.; salicylamide 150 mg.; buclizine HCl 15 mg.

REFERENCES: 1. Carlozzi, M.: Antibiotic Med. & Clin. Therapy 5:146 (Feb.) 1958. 2. Welch, H.; Wright, W. W., and Staffa, A. W.: Antibiotic Med. & Clin. Therapy 5:52 (Jan.) 1958. 3. Marlow, A. A., and Bartlett, G. R.: Glucosamine and leukemia, Proc. Soc. Exp. Biol. & Med. 84:41, 1953. 4. Shalowitz, M.: Clin. Rev. 1:25 (April) 1958. 5. Nathan, L. A.: Arch. Pediat. 75:251 (June) 1958. 6. Cornbleet, T.; Chesrow, E., and Barsky, S.: Antibiotic Med. & Clin. Therapy 5:328 (May) 1958. 7. Stone, M. L.; Sedlis, A., Bamford, J., and Bradley, W.: Antibiotic Med. & Clin. Therapy 5:322 (May) 1958. 8. Harris, H.: Clin. Rev. 1:15 (July) 1958.

Pfizer *Science for the world's well-being*

*Trademark

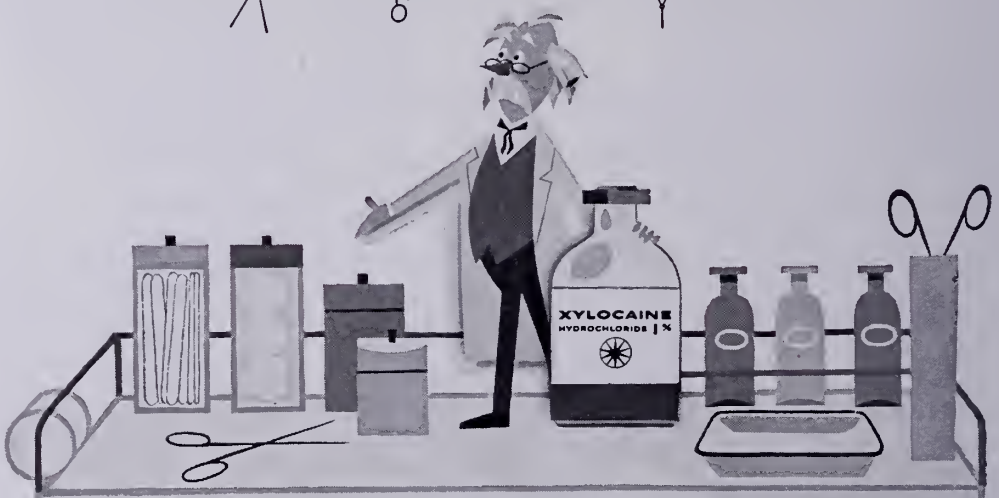
PFIZER LABORATORIES *Division, Chas. Pfizer & Co., Inc., Brooklyn 6, New York*

IN OFFICE SURGERY

ELECTIVE AND TRAUMATIC

use XYLOCAINE *first...*
as a local anesthetic
or a topical anesthetic

SWAB SPRAY INFILTRATION NERVE BLOCK



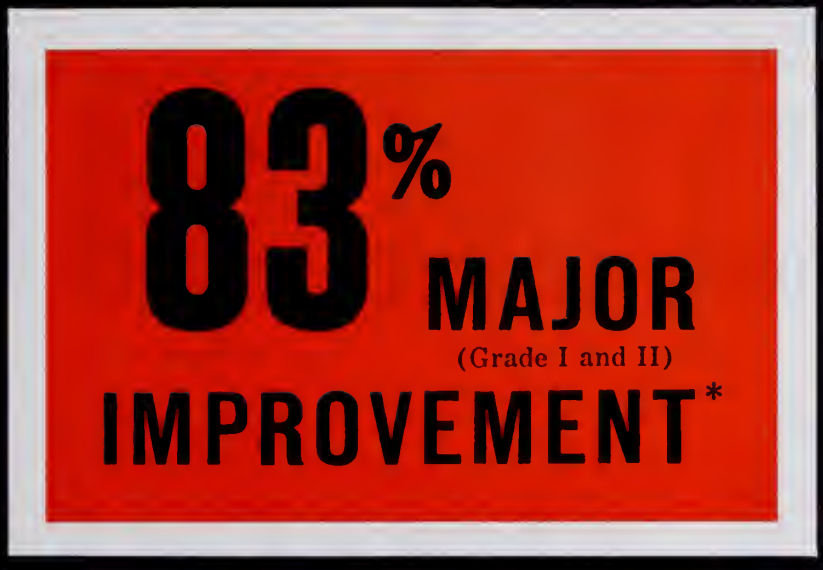
Xylocaine HCl solution, the versatile anesthetic for general office surgery, relieves pain promptly and effectively with adequate duration of anesthesia. It is safe and predictable. Local tissue reactions and systemic side effects are rare. Supplied in 20 cc. and 50 cc. vials; 0.5%, 1% and 2% without epinephrine and with epinephrine 1:100,000; also in 2 cc. ampules; 2% without epinephrine and with epinephrine 1:100,000.

XYLOCAINE® HCl SOLUTION
(brand of lidocaine*)

Astra Pharmaceutical Products, Inc., Worcester 6, Mass., U.S.A.

SEE PDR

*U.S. PAT. NO. 2,441,498 MADE IN U.S.A.



in Rheumatoid Arthritis

*Using combined drug therapy with **PLAQUENIL®** or Aralen® as maintenance therapy. With Plaquenil or Aralen alone 62% grade I and II improvement. (Scherbel, A.L.; Harrison, J.W., and Atdjian, Martin: Cleveland Clin. Quart. 25:95, April, 1958. Report on 805 patients with rheumatoid arthritis or related diseases.)

Reasons for Failure:

1. Treatment discontinued too soon (percentage of patients improved increases substantially after first six months).
2. Patients in relapse after prolonged steroid therapy are resistant to Plaquenil or Aralen treatment for several months.

Plaquenil sulfate is supplied in tablets of 200 mg., bottles of 100.

Dose: Initial — 400 to 600 mg. (2 or 3 tablets) daily.
Maintenance — 200 to 400 mg. (1 or 2 tablets) daily.

Write for Booklet.

Aralen (brand of chloroquine) and Plaquenil (brand of hydroxychloroquine), trademarks reg. U.S. Pat. Off.

Winthrop LABORATORIES
New York 18, N. Y.

to relieve edema of

DIURIL®

CHLOROTHIAZIDE

FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

DIURIL (Chlorothiazide) given alone to 85 patients, ". . . caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria. . . . The average effective dose was found to be 1 Gm. per day by mouth. . . . The usually excellent response coupled with the absence of significant toxicity and lack of development of drug resistance makes chlorothiazide ideal for the prevention and treatment of toxemia."

DOSAGE: one or two 500 mg. tablets of DIURIL once or twice a day.

SUPPLIED: 250 mg. and 500 mg. scored tablets DIURIL (chlorothiazide); bottles of 100 and 1,000.

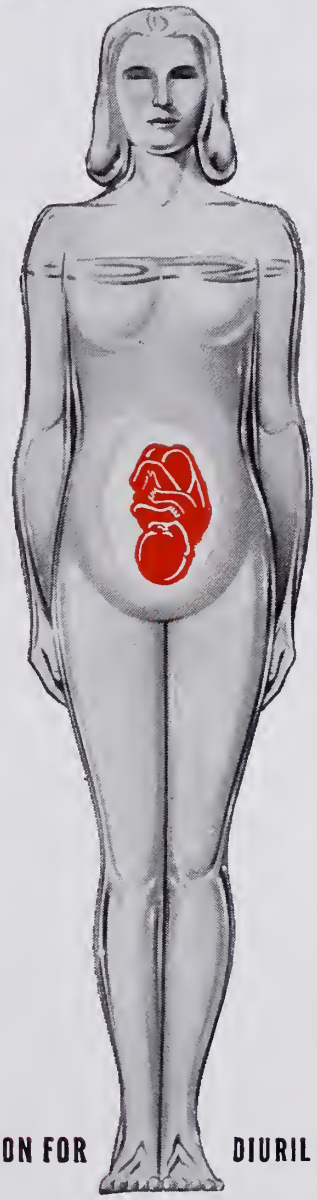
DIURIL is a trademark of Merck & Co., Inc.

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MERCK SHARP & DOHME Division of MERCK & CO., INC., Philadelphia 1, Pa. MSD

pregnancy

....caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria...."



ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL



provides dependable, fast, effective therapy

dependable action

because all patients show therapeutic blood concentrations of penicillin with recommended dosages.

quick deployment

of the bacteria-destroying antibiotic. Within five to fifteen minutes after administration, therapeutic concentrations appear in the general circulation.

higher blood levels

than with any other penicillin given orally. Bactericidal concentrations are assured. Infections resolve rapidly.

Dosage: 125 or 250 mg. three times daily.

Supplied: Tablets, scored, of 125 and 250 mg. (200,000 and 400,000 units).

New **V-Cillin K, Pediatric:** In bottles of 40 and 80 cc. Each 5-cc. teaspoonful provides 125 mg. V-Cillin K.

V-Cillin® K (penicillin V potassium, Lilly)

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U.S.A.

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IN DEBILITATING DISEASE

Patients receiving

NILEVAR®

Eat more...
Feel better...
Recover faster

Compared to control patients, those receiving Nilevar (brand of norethandrolone) have repeatedly demonstrated more rapid and more complete recovery from serious acute illness and increased comfort and well-being in chronic illness.

A multitude of case histories are now adding individual clinical color to the earlier controlled investigations which defined the actions of Nilevar as an effective aid in reversing negative nitrogen balance and in building protein tissue.

In typical case reports such gratifying comments as these appear:

Underweight —"Appetite considerably increased within one week. Sense of well-being and vigor increased along with increased appetite."

Prematurity (Birth weight: 2 pounds, 4 ounces) — "Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

Carcinoma of the Uterus —"Within four days appetite became excellent, took full diet. . . . More ambition while on Nilevar. Enjoys life. Takes part in church and other social affairs."

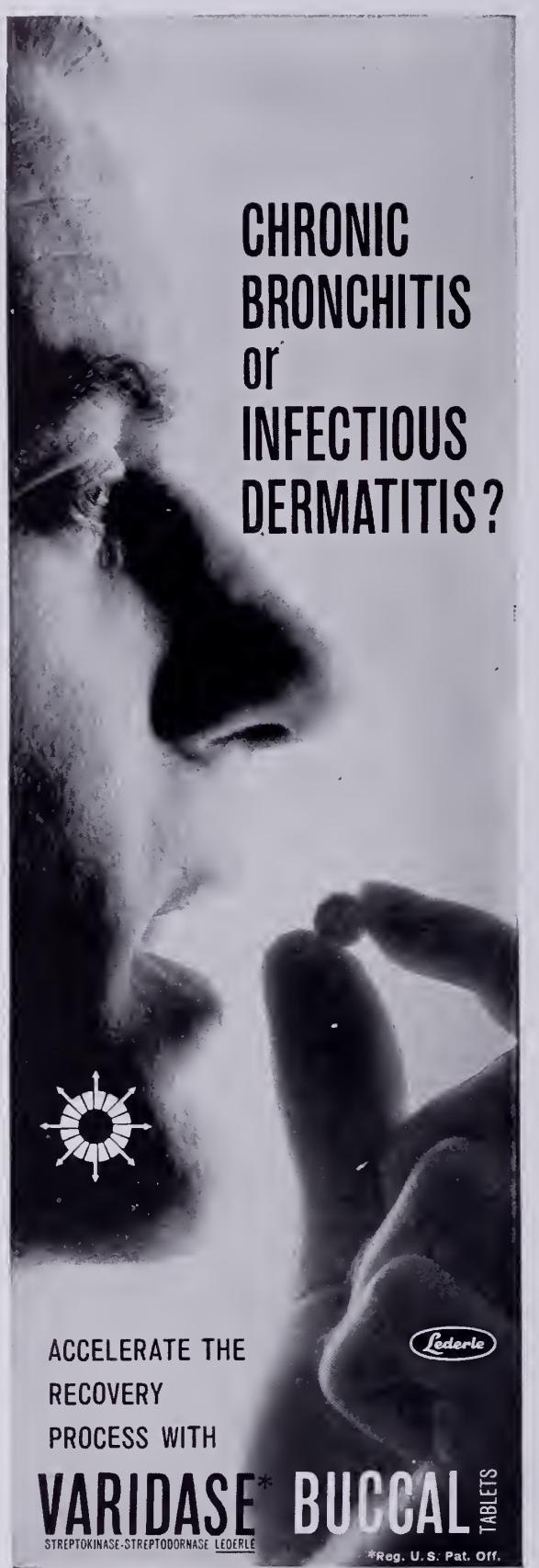
Third Degree Burn —". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

Nilevar is supplied in tablets of 10 mg. and ampuls of 25 mg. (1 cc.).

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE



LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

CHLORPROPAMIDE FOR DIABETES

At a recent symposium at the New York Academy of Sciences, experience with chlorpropamide in approximately 500 patients was reviewed. Although it is probable that chlorpropamide and other sulfonylurea drugs, such as tolbutamide and carbutamide, have a similar mechanism of action, a more potent hypoglycemic effect has been noted after chlorpropamide therapy. Whether this enhanced blood sugar-lowering capacity is due to inherent properties of the drug or to differences in its metabolic fate has not been determined. The bulk of present evidence favors the latter, since the compound is not converted to an inactive form within the body as is tolbutamide, and since the half-life is greatly prolonged due to slow excretion through the kidneys.

Side effects usually have consisted of nausea, anorexia, dizziness and muscle weakness. Chest pain also has occurred, but it seems more related to coronary insufficiency provoked by hypoglycemia. Toxic effects, including skin rashes and minor depressions in white cells and platelets, have been reported, but the most alarming has been jaundice due to intracanicular bile stasis, such as has occurred following chlorpromazine and methyl testosterone therapy. Both the side-effects and toxic effects have been much more prone to occur at high dosage levels (i.e., above 1.5 Gm. per day). Reduction in dosage or cessation of therapy has resulted in prompt disappearance of both the side effects and toxic effects.

Present experience indicates that successful therapy usually can be carried out at low dosage levels (250 to 500 mg. per day). Because of the slow excretory rate, intermittent therapy may be possible. Whether jaundice will be a problem at these low dosage levels remains to be determined.

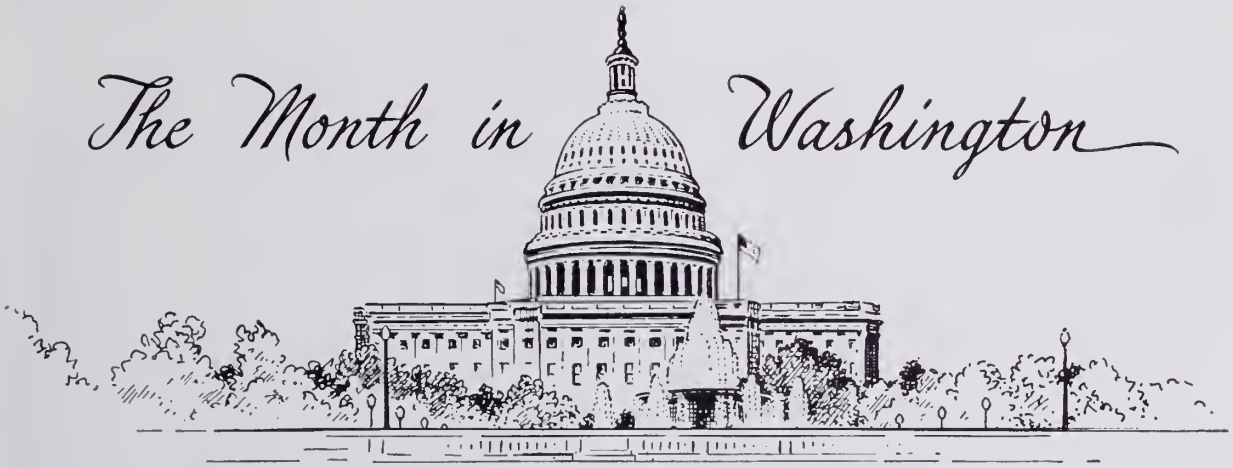
—Editorial, NEW YORK STATE JOURNAL OF MEDICINE, 58:3602, (Nov. 15) 1958.

HISTOPLASMOSIS IS SPREADING

In the October issue of GP, M. L. Furculow, of the U.S.P.H.S. Communicable Disease Center in Kansas City, reported that physicians in 22 states in the Missouri, Mississippi and Ohio river valleys have found areas where a third or more of the young adults have histoplasmosis.

Histoplasmosis, he pointed out, "mimics other diseases," such as the common cold, influenza, typhoid fever and tuberculosis. It is not a contagious disease; instead, it is caused by a fungus that grows in the soil and normally strikes only those who have visited an infected area. The fungus grows best in damp, shady areas and in soil that has a high organic content. Favorite spots are chicken coops, pigeon roosts, caves, storm cellars and silos. Young children, especially city children, Dr. Furculow says, should be kept away from chicken coops and other possibly contaminated areas.

The Month in Washington



Washington, D. C.—The 86th Congress convenes January 7 with a top-heavy Democratic majority in both House and Senate. This, in turn, will find all Congressional committees including those dealing with health bills, with a higher proportion of Democrats.

Because legislation rarely gets to the floor for a vote unless some committee sends it there, the makeup of committees is of considerable importance in any Congress. It will be doubly so in the 86th Congress, where so many new personalities and new ideas promise to abound.

In the Senate during the 85th Congress, when the line-up was 49 Democrats to 47 Republicans, committees were fairly evenly divided—generally only one more Democrat than Republican. With the ratio in the Senate increased to 62 to 34, committee composition may run as much as 10 to 5 or 9 to 6 in favor of the majority party. The Reorganization Act of 1946 assures each Senator of two committee assignments, and thus 26 new places have to be found on Senate committees in January.

Each party and each branch of Congress has its own way of naming members to the many committees. In the Senate, the Democrats make appointments through a standing 15-man group known as the Democratic Steering Committee. Its chairman is Majority Leader Lyndon Johnson, and other members are Senators Mansfield, Hennings, Chavez, Ellender, Frear, Russell, Hayden, Holland, Humphrey, Pastore, McClellan, Robertson and Johnston of South Carolina.

The Republicans in the Senate make their appointments through a 5-man Committee on Committees which in the last Congress was made up of Senators Knowland, Bricker, Saltonstall, Bridges and Dirksen.

In the House, the selection of Democratic members is done by the majority members of the Ways and Means Committee which sits as a Committee on Committees. The Republicans have a different approach. When Congress convenes, each state delegation meets and names a representative to a Committee on Committees; he has as many votes on the committee as there are Republicans in his delegation. Chairman of the committee is Minority Leader Joseph Martin.

The House Ways and Means Committee which undoubtedly will be considering legislation of import to physicians (hospitalization of the aged under social security, and tax deferrals on money paid into annuities) has for several years been divided 15 Democrats to 10 Republicans. This ratio may change to 17 to 8. In any event, seven members will not serve in the new Congress. One was lost through death, four through decisions not to run for re-election to the House and two to defeat at the polls.

The Senate Finance Committee, which will be handling much the same legislation as Ways and Means, has been divided 8 to 7. It is certain that three Republicans will not serve again; two retired from the Senate and one was defeated in the recent elections.

The House Interstate Committee, another group of importance to the profession because of its interest in federal aid to medical schools and Hill-Burton amendments among other things, has lost the three top-ranking Republicans and the only physician serving on a committee dealing with health. Either they did not seek re-election or they were defeated at the polls.

The Senate Labor Committee, which has jurisdiction over most of the major health proposals in the Senate outside of social security, loses three Republican members. Its present lineup of 8 to 7 will be changed too, probably to 10 to 5.

* * *

Physician members of the 86th Congress number four. This is one less than in the 85th Congress. Returned again were Drs. Walter Judd of Minnesota and Thomas Morgan and Ivor Fenton, both of Pennsylvania. Defeated were Drs. Will Neal of Virginia and A. L. Miller of Nebraska.

One new doctor has been added. He is Dr. Thomas Dale Alford, a board ophthalmologist of Little Rock, Ark., where he has been in active practice since 1948. Dr. Alford, 42, was educated in Arkansas schools and received his medical degree from the University of Arkansas. He served in the Army Medical Corps during World War II.

Dr. Morgan, who has been acting chairman of the House Foreign Affairs Committee since last summer, is slated to become chairman when the new Congress is formally organized. He will thus be the first physician chairman in the 136 years of the committee.

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Fractures & Traumatic Surgery, Two Weeks, March 9
Treatment of Varicose Veins, Two Days, February 2, March 2
American Board Review Course, Two Weeks, April 6
Blood Vessel Surgery, One Week, March 2
Gallbladder Surgery, Three Days, March 30
Surgery of Hernia, Three Days, April 2

GYNECOLOGY & OBSTETRICS—Office & Operative Gynecology, Two Weeks, February 9, March 16
Vaginal Approach to Pelvic Surgery, One Week, ruary 2, March 9
General & Surgical Obstetrics, Two Weeks, Feb- February 2, March 9

MEDICINE—Electrocardiography, Two-Week Basic Course, March 16
Gastroscopy & Gastroenterology, Two Weeks, March 2
American Board Review Course, One Week, April 20

UROLOGY—Two-Week Intensive Course, March 30
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Excessive bathroom straining caused by constipation may aggravate or precipitate some of the factors leading to peripheral gangrene in aged patients, the Philadelphia meeting of the Gerontological Society was told early in November. The researchers making that claim were Dr. Saul Samuels, director of angiology at the Brooklyn Home for the Aged, and Dr. Alfred Halpern, director of the Department of Experimental Therapy at Stuyvesant Polyclinic, New York City. They reported that "peripheral gangrene results when the blood supply to a limb is blocked so that tissue metabolism is depressed or stopped and the cells die." They warned that unless specific and effective procedures are instituted early, the loss of a limb is almost certain.

The researchers pointed out that a study of blood flow in the arms and legs of constipated patients established the fact that toilet straining caused a shut down in the flow of blood through the limbs. And furthermore, they emphasized that the correction of constipation is frequently overlooked in the conservative management of gangrene.

They reported studies of over 700 patients who had peripheral gangrene of varying degrees. Nonoperative treatment had been successful in more than 600. The regimen consisted of no smoking, complete bed rest, at least two ounces of whiskey daily, a high protein diet with adequate vitamin supplementation, daily foot baths, and aspirin to control pain and antibiotics to control infection.

ENCOURAGING DOCTORS IN CIVIC ACTIVITY

If Atlanta doctors are getting a reputation for civic spirit, it is no accident. The Fulton County (Georgia) Medical Society's citizenship committee doesn't leave physician participation in community service to chance. First, the committee found out the needs of various civic organizations; then it sent out postcards asking physicians to volunteer their services. Seventy-three of them responded.

Then the committee surveyed society members to find out what activities they were currently engaged in. Of the 43 per cent who replied, each averaged four citizenship activities. Church work drew the most (89 per cent), but physicians were also active in youth groups, PTA, Civil Defense, Chamber of Commerce, service clubs, health and welfare agencies, and even UN and international organizations.

Now, each month the society's bulletin lists the names of members participating in different types of community service work so that others who are interested will know whom to see. Each year, the group presents an Aven Citizenship Award to the doctor who is judged to have made the most outstanding contribution in the area of public service.



Personals



Dr. Wallace M. McCrory, the new head of the Department of Pediatrics at the S.U.I. College of Medicine, will present a paper on "Diagnosis and Management of Nephritis and Nephrosis in Children" before the Scott County Medical Society, in the Outing Club, in Davenport, at 7:30 p.m. on December 2. All physicians in the immediate area are cordially invited to attend.

Five Iowans were inducted as fellows by the American College of Surgeons in Chicago on October 10. They are **Dr. Don O. Newland,** an obstetrician and gynecologist, and **Dr. Arthur H. Downing,** an ophthalmologist, both of Des Moines; **Dr. Francis E. Giles,** a Fort Dodge urologist; **Dr. Gonzalo Obregon,** an otolaryngologist at S.U.I.; and **Dr. Albert L. Clemens,** a Des Moines surgeon.

On October 17, **Dr. Dean M. Lierle,** professor and head of otolaryngology at the S.U.I. College of Medicine, was chosen as president-elect of the American Academy of Ophthalmology and Otolaryngology for the calendar year 1959.

The State Selective Board has distributed 10-year awards to 109 Iowa physicians for service rendered to local draft boards. The JOURNAL doesn't have the complete list, but the following have been mentioned as recipients in local newspapers: **Drs. Frank D. Edington** and **Clare C. Jones,** of Spencer; **Dr. A. J. Gantz,** of Greenfield; **Dr. W. C. Baltzell,** of Charles City; **Drs. C. L. Bain** and **John C. Nolan,** of Corning; **Dr. W. I. Evans,** of Sac City; **Dr. Richard E. Phelps,** of New Sharon; **Dr. F. J. Swift,** of Maquoketa; **Dr. G. D. Bullock,** of Inwood; **Drs. Carl V. Bisgard** and **Joseph H. Spearing,** of Harlan; **Drs. A. J. Jongewaard** and **J. I. Limburg,** of Jefferson; **Dr. Forest H. Coulson,** of Burlington; **Dr. J. Stewart Jackson,** of Mt. Pleasant; **Dr. Lora D. James,** of Fairfield; **Dr. J. T. Worrell,** of Keosauqua; **Dr. C. W. Byrnes,** of Dunlap; **Dr. F. X. Tamisiea,** of Missouri Valley; **Dr. W. J. Wolf,** of West Union; **Dr. H. E. O'Neal,** of Tipton; **Dr. R. E. Clark,** of Manchester; **Dr. Clark W. Rominger,** of Waukon; **Dr. B. F. Howar,** of Webster City; **Dr. H. M. Andersen,** of Strawberry Point; **Dr. A. R. Powell,** of Elkader; **Drs. E. H. Carlson** and **K. E. Wilcox,** of Muscatine; and **Drs. John A. Cahill, Richard V. McKay, Jr.,** and **D. C. Sharpe,** of Dubuque.

The Linn County Medical Society has named a committee consisting of **Drs. R. E. Weland, Wayne Cooper, Robert Locher, Richard Sedlacek** and

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Paul Berney to work with the local branch of the Cancer Society. A service committee of the latter organization will provide financial aid, sickroom equipment and, in some instances, housekeeping service to needy cancer patients in and about Cedar Rapids.

Open house was held on October 19 at the 25-room Medical Arts Center in Cresco which has been under construction since May, 1957. Three physicians, **Drs. P. A. Nierling, C. A. Field** and **W. K. Dankle,** and a dentist, **Dr. George Hill,** will practice there, and the building will also house a pharmacy.

Dr. Robert W. Lee, who has been practicing in Fort Dodge for about three years, was made a diplomate of the American Board of Anesthesiology in October.

Buchanan County doctors honored **Dr. B. B. Sells,** of Independence, at a dinner there on October 10. The occasion was his seventy-ninth birthday and the fifty-third anniversary of his entry into medical practice.

Dr. David O. Holman has come from Illinois to Ottumwa to take over the practice of **Dr. Ray Phelps,** who left on November 8 for a new location in the Sherman-Denton community in Texas. The newly arrived pathologist has taken over operation of the Physicians Clinical Laboratories and direction of pathologic services at the Ottumwa, St. Joseph and Sunnyslope Hospitals in Ottumwa, at the Mercy and Mahaska County Hospitals in Oskaloosa, and at the public hospitals in Monroe, Jefferson, Keokuk, Davis and VanBuren Counties. Before taking specialty training, Dr. Holman practiced general medicine for two years in Nora Springs. He is a diplomate of the American Board of Pathology, and has published some papers in the field of forensic pathology.

The Linn County Medical Society is one of three organizations that provided added prizes for a science fair held in Cedar Rapids on November 1 and 2. School students presented exhibits and demonstrations, competing in four classes—first through third, fourth through sixth, seventh through ninth, and tenth through twelfth grades.

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sistants, was chosen president-elect of the medical assistants' national organization at the annual meeting held in Chicago late in October. For seven years, Mrs. Little has been an employee of **Dr. J. J. Redmond.**

Dr. D. R. Richardson, a member of the American College of Surgeons, joined **Dr. D. F. Shaw** in practice at Britt on November 1. A graduate of the S.U.I. College of Medicine, he received his specialty training at Bell Memorial Hospital, in Kansas City, served a tour of Army duty and practiced in Houston before coming to Iowa.

After conducting psychiatric examinations of all patients at the Polk County Home, near Des Moines, a procedure which state law requires annually, **Dr. H. R. Unworth,** a psychiatrist on the staff of the Clarinda Mental Health Institute told a REGISTER AND TRIBUNE reporter that about 85 per cent of Polk patients have been at the Clarinda institution or at one of the other state mental hospitals. Of the 116 men and 112 women there, he recommended that two be returned to Clarinda for staff reevaluation and possible discharge or parole, and that one be returned as too violent to remain at the County Home.

His remarks about the staff at the Home were complimentary, and he had some nice things to say about the mental health situation throughout the state, though he saw room for improvement.

On Sunday, November 2, about 700 citizens of Dows and the surrounding area attended a reception in honor of **Dr. G. E. Schnug,** who has served the community for 47 years, and the local newspaper got out a special edition in his honor. Dr. Schnug has practiced only limitedly since 1955.

On November 11, **Dr. Charles C. Edwards,** a Des Moines surgeon, addressed the Hardin County Medical Society, in Eldora, on arterial grafting.

Dr. T. V. Niemann, who has practiced in Brooklyn, Iowa, since 1938, will take a post at the VA Hospital in Hot Springs, South Dakota, on December 1.

On November 3, **Dr. Francis C. Coleman,** of Des Moines, was named president-elect of the American College of Pathologists.

At a short course for registered and practical nurses on the care of cardiac patients, conducted at Davenport early in November by the Mississippi Valley Heart Council and Region V of the



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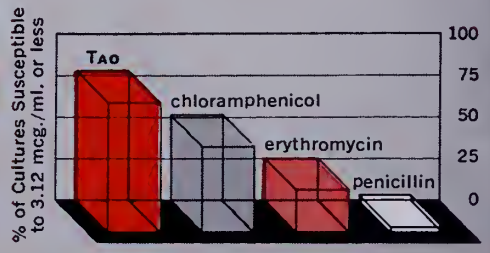
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References: 1. English, A. R., and Fink, F. C.: Antibiotics & Chemother. (Aug.) 1958. 2. English, A. R., and McBride, T. J.: Antibiotics & Chemother. (Aug.) 1958. 3. Wennersten, J. R.: Antibiotic Med. & Clin. Therapy (Aug.) 1958. 4. Celmer, W. D., et al.: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc., 1958, p. 476.

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Illinois Heart Association, the speakers included **Dr. David M. Paul,** chief of physical medicine and rehabilitation at the Iowa City VA Hospital, and **Drs. Harry B. Weinberg, E. A. Motto** and **H. M. Hurevitz,** internists, and **Dr. W. S. Pheteplace,** a pathologist, all of Davenport.

Dr. John F. Byers has joined the staff of the Cogley Clinic, in Council Bluffs. He took his M.D. at Creighton University in 1955, interned at Mercy Hospital, Council Bluffs, and since then has been in the Air Force, stationed first in Alaska and later in Omaha.

Early in November, **Dr. W. B. Bean,** head of internal medicine at the S.U.I. College of Medicine, delivered a series of five lectures and conducted clinics at the Washington University School of Medicine, in St. Louis.

Dr. Milford E. Barnes, Jr., an associate professor of psychiatry at S.U.I., has been made a fellow of the American Academy of Child Psychiatry. About 120 physicians now have that distinction.

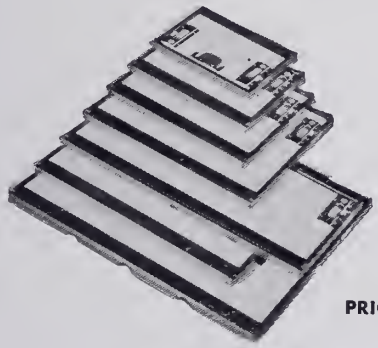
On November 18, the Linn County Medical Society staged a public forum at Washington High School, Cedar Rapids, on diet and weight control. **Dr. J. Stewart McQuiston** was moderator, and the panel consisted of **Drs. John P. Barthel** and **Carl R. Aschoff, Miss Rosetta Cerny,** dietitian at St. Luke's Hospital, **Miss Margaret Drey,** dietitian at Mercy Hospital, and **Miss Gladys Wathan,** a high school home economics teacher.

On November 10, **Dr. Daniel A. Glomset,** a Des Moines internist, addressed an open meeting at East High School there, on "How to Enjoy Retirement." The sponsor was the Adult Education Department of the Des Moines Public Schools.

Addressing a League of Women Voters meeting in Ames on November 5, **Dr. J. O. Cromwell,** director of state mental institutions, said that per-patient cost at Iowa mental hospitals is about $4 per day, but it would have to be at least $10 per day if staffing were to meet American Psychiatric Association minimum requirements. The institutions, he declared, can't pay attendants well enough to keep them through their training periods. The average stay of attendants is now only about six months, but such a person doesn't achieve maximum efficiency until the end of his first year.

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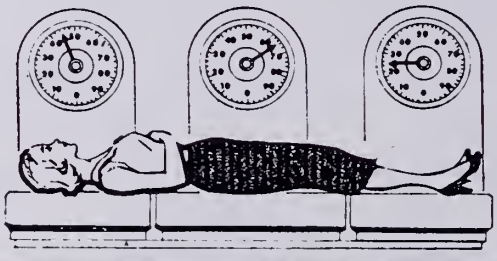
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Cromwell asked for the establishment of "halfway houses," where patients could stay through their final six months before returning to society. He reported that each of the four mental health institutes now has 100 patients who could be put into such facilities, thereby making room for cases in need of intensive therapy.

In Independence on the afternoon and evening of October 17, the Iowa Academy of General Practice, the State Department of Health and the Iowa State Medical Society held the first of a series of conferences designed to improve cooperation between GP's and psychiatrists. The speakers included **Dr. Samuel P. Leinbach,** of Belmond, **Dr. Walter Bromberg,** of the Independence Mental Health Institute, **Dr. Paul Huston,** head of psychiatry at S.U.I., and **Dr. W. J. Moershel,** a Cedar Rapids psychiatrist.

On November 16, **Drs. Leo H. Kuker** and **Paul T. Cawley** held open house at their $100,000 new clinic building in Carroll. They had finished moving into the new structure on October 31.

At Clinton, a new office building was occupied on November 15 by four physicians, **Drs. Vernon Petersen, Milton Barrent, James Taylor** and **Leonard Nelken,** and two dentists, **Drs. Robert Norris** and **Max Lyon.**

Dr. Leo B. Sedlacek, a psychiatrist, was chosen on October 22 as the Cedar Rapids Lions Club "Lion of the Year." The fifth man to be so honored, Dr. Sedlacek is vice-president of the organization and has been chairman of its eye-bank project.

Dr. Harold Margulies, a Des Moines internist, and his wife returned in mid-October from a six-weeks European trip. Dr. Margulies attended the World Cardiology Congress, in Brussels.

In October, a Dubuque County Medical Society dinner meeting honored **Dr. Anthony M. Loes,** and he was given a plaque signifying his membership in the ISMS Fifty Year Club. **Dr. D. C. Conzett,** a past president of the State Society, made the presentation.

Dr. A. B. Hayles, head of pediatrics at the Mayo Clinic, was guest speaker at the annual turkey-



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dinner meeting of the Clinton County Medical Society, at the Clinton Country Club on October 21. His address, dealing with the problems of adolescents, was entitled, "The Long and the Short of It."

Dr. Addison W. Brown, a Des Moines obstetrician and gynecologist, participated in the installation of Harvey H. Grice, Ph.D., as eighth president of Graceland College, in Lamoni on October 19. Dr. Brown is one of the trustees of the College, and a daughter of his is a student there.

In addressing a meeting of the Iowa Nursing Home Association, at the Kirkwood Hotel in Des Moines on October 22, **Governor Herschel Loveless** said that next year's legislature should enact a law permitting an increase in payments for nursing home care of old age pension recipients. The state, he said, now pays $99 per month, and some counties supplement that payment by as much as $39, but that $138 isn't enough to buy the care that those people need.

At a meeting of the Iowa Tuberculosis and Health Association in Des Moines on October 23, the speakers included **Dr. Leon Galinsky,** of Des Moines, **Dr. George W. Smiley**, of Ottumwa, **Dr. Donald A. Trauger**, of New York City, and **Dr. Robert C. Parlett**, of the Northwestern University Medical School.

Dr. Parlett described a newly developed blood test for tuberculosis.

At a Mahaska County Medical Society meeting in Oskaloosa during October, **Dr. F. O. W. Voigt** represented the ISMS in presenting a Fifty Year Club membership to **Dr. E. B. Wilcox.**

Two S.U.I. professors had parts in the program of the American Academy of Pediatrics, in Chicago during October. **Dr. Wallace W. McCrory,** head of pediatrics, conducted two courses on kidney disease in children, and **Dr. Charles H. Read** presented a paper on "Hormonal and Metabolic Interrelationships in Juvenile Diabetes."

Dr. R. B. May, formerly head of the Department of Pediatrics, was chosen to receive the Borden Award, for which the Academy chooses a recipient annually. He is now executive director of the Physicians' Council for Information on Child Health.

At the Hamilton County Hospital on October 21, x-ray technicians from Fort Dodge, Hampton, Clarion, Iowa Falls and Webster City met to re-



nasal and paranasal congestion and control secondary invaders

Now, a single unique preparation, Trisulfaminic, can provide dramatic relief from congestion, and at the same time protect the patient from secondary bacterial invaders. Often within minutes of the first dose, congestion begins to clear; the patient can breathe again.

Trisulfaminic is particularly valuable for the "almost well" patient who is recovering from influenza but is left with congested nasal and bronchial passages. And for patients with purulent rhinitis, sinusitis or tonsillitis, combination therapy with Trisulfaminic offers a most realistic approach to total treatment.

Oral Decongestant Action. Through the action of Triaminic, nasal patency is achieved rapidly and dramatically. Adequate ventilation helps eliminate mucus-harbored pathogens. And because Trisulfaminic is administered *orally,* there is no problem of rebound congestion, no pathological change wrought in the nasal mucosa.

Wide-Spectrum Action. Secondary bacterial infections, which are always a threat in upper respiratory involvement, are forestalled by the wide-spectrum effectiveness of triple sulfonamides. This added antibacterial protection makes Trisulfaminic highly useful in treating the debilitated patient who is prone to lingering or frequently recurring colds.

Trisulfaminic *tablets and suspension*

TRIAMINIC PLUS TRIPLE SULFAS

Each Tablet and each 5 ml. teaspoonful of Suspension contains:

Triaminic®	25 mg.
(phenylpropanolamine HCl	12.5 mg.;
pheniramine maleate	6.25 mg.;
pyrilamine maleate	6.25 mg.)
Trisulfapyrimidines U.S.P.	0.5 Gm.

Dosage: Adults—2 to 4 tablets or teaspoonfuls initially, followed by 2 tablets or teaspoonfuls every 4 to 6 hours until the patient has been afebrile for 3 days. Children 8 to 12 years—2 tablets or teaspoonfuls initially, followed by 1 tablet or teaspoonful every 6 hours. Younger children—dosage in proportion.

SMITH-DORSEY • a division of The Wander Company • Lincoln, Nebraska • Peterborough, Canada

THE RATIONALE FOR THE USE OF VITAMINS IN FORESTALLING INFECTIONS

Many clinicians believe that good nutrition plays a significant role in preventing bacterial infections, and that immunity depends on adequate vitamin levels. Tisdall[1] states that "a low intake of a number of vitamins, a low intake of minerals, and a change in the quality of protein can all lower resistance to infection."

Other studies show the important role of the B vitamins in antibody formation. Thus, *Nutrition Reviews*[2] reports: "Present evidence indicates that certain B vitamins, notably pyridoxine, pantothenic acid and folacin, play a significant role in antibody synthesis." According to Pollack and Halpern,[3] "Under-nutrition leads to increased susceptibility to infection and decreased resistance to established disease." And "vitamin deficiency states also may adversely influence circulating antibodies."

Halpern[4] reports that "good nutrition is important for optimal resistance to infection, for a superior tissue capability to cope with disease and injury, and for maximum antibody production . . . nutrition participates in the prophylaxis against most acute infections . . ."

And while MacBryde[5] feels that evidence is lacking to support the view that a higher than normal intake of vitamins will improve resistance to infection, he also states: "Restoration of nutrition to normal exerts a favorable influence on practically all disease conditions . . . Often the outcome will depend more upon the correction of the malnutrition than upon any therapy directed toward the malady."

THERAGRAN

SQUIBB VITAMINS FOR THERAPY

now expanded to include additional essential vitamins—

and at no extra cost to your patients

Each Theragran Capsule supplies:

Vitamin A	25,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Ascorbic Acid	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B_{12} Activity Concentrate	5 mcg.

Dosage: 1 or more capsules daily as indicated.

Supply: Family Packs of 180. Bottles of 30, 60, 100 and 1,000.

Also Available: THERAGRAN Liquid, bottles of 4 ounces; THERAGRAN Junior bottles of 30 and 100 capsules; and THERAGRAN-M (Squibb Vitamin-Minerals for Therapy), bottles of 30, 60, 100 and 1,000 capsule-shaped tablets.

References: 1. Tisdall, F. F.: Clinical Nutrition, ed. by Joliffe, N.; Tisdall, F. F., and Cannon, P. R.: Paul B. Hoeber, Inc., New York, 1950, p. 748. 2. Nutrition Reviews, *15*:47, (Feb.) 1957. 3. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 18. 4. Halpern, S. L.: Ann. N. Y. Acad. Science *63*:147, (Oct. 28) 1955. 5. MacBryde, C. N.: Signs and Symptoms, J. B. Lippincott Co., Phila., 3rd Ed. 1957, p. 818.

SQUIBB CENTENNIAL 1858 1958 SQUIBB *Squibb Quality—The Priceless Ingredient*

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organize their district society. **Richard Davidson, R.T.**, of Webster City was named chairman, and **Miss Ruth Boyd**, of Iowa Falls, was made secretary-treasurer.

The October 12 issue of the CEDAR RAPIDS GAZETTE contained a large picture of **Dr. Clarence E. Douglas**, of Belle Plaine, and a three-column feature story about him.

Dr. and Mrs. Maurice T. Bates, of Des Moines, spent a three-week vacation in New England in late September and early October.

Dr. Garfield Miller has arranged for the construction of an office building for himself and a dentist in Calmar.

Dr. Charles L. Dagle has returned to the staff of the Kersten Clinic, in Fort Dodge, where he spent about three months in 1956. He is a 1955 graduate of the College of Medicine at S.U.I., and he interned at Broadlawns-Polk County Hospital, in Des Moines. During the past two years he has been in the Air Force, stationed at an installation in Ardmore, Oklahoma, as general medical officer. He has been discharged with the rank of captain.

The October 15 issue of the WATERLOO COURIER contained a picture and an article in recognition of **Dr. S. W. Barnett's** 30 years of care given to Cedar Falls High School athletes.

Dr. Thomas C. Piekenbrock, of Dubuque, addressed 40 school nurses from eight counties at the City Hall there on October 10. His topic was "Early Symptoms in the Disturbed School Child."

The November 5 meeting of the Johnson County Medical Society was held at the Oakdale Sanatorium, and the scientific program consisted of a discussion of "Changes in Chest Surgery in the Last 30 Years." The panel was made up of **Dr. Clark N. Cooper**, of Waterloo, **Dr. Ray A. Fox**, of Charles City, and **Dr. Vernon W. Petersen**, of Clinton, and the moderator was **Dr. J. L. Ehrenhaft**, of S.U.I.

Dr. C. F. Brubaker, of Corydon, began some time ago to tell his patients of his plan to retire on January 1 of next year, but heeding their protests, he has now indefinitely postponed doing so.

A medico-legal seminar was conducted in Fort Dodge on November 6, under the sponsorship of the Webster County Bar Association. The speak-

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as a local or topical anesthetic



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† warts; moles; sebaceous cysts; benign tumors; wounds; lacerations; biopsies; tying superficial varicose veins; minor rectal surgery; simple fractures; compound digital injuries (not involving tendons, nerves or bones)

SEE PDR

*U.S. PAT. NO. 2,441,498 MADE IN U.S.A.



FAST-ACTING ORAL BROAD-SPECTRUM THERAPY. The modern blue and yellow ACHROMYCIN V Capsules, combining equal parts of pure crystalline ACHROMYCIN Tetracycline HCl and Citric Acid, provide unsurpassed oral broad-spectrum therapy.

Speed of absorption adds new emphasis to the benefits of true broad-spectrum action, minimum side effects and wide range effectiveness that have established ACHROMYCIN as an antibiotic of choice for decisive control of infection.

REMEMBER THE V WHEN SPECIFYING ACHROMYCIN V. New blue and yellow capsules (sodium-free)—250 mg. with 250 mg. citric acid, and 100 mg., with 100 mg. citric acid.

ACHROMYCIN V dosage; Recommended basic oral dosage is 6-7 mg. per lb. body weight per day. In acute, severe infections often encountered in infants and children, the dose should be 12 mg. per lb. body weight per day. Dosage in the average adult should be 1 Gm. divided into four 250 mg. doses.

ACHROMYCIN* V CAPSULES

Tetracycline HCl and Citric Acid Lederle

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

Lederle

*Reg. U. S. Pat. Off.

ers were **Hon. T. G. Garfield, of Ames,** chief justice of the Iowa Supreme Court; **District Judge G. R. Hill,** of Clarion; and **Dr. Walter D. Abbott,** a Des Moines neurosurgeon and president of the Iowa State Medical Society. Their topics, respectively, were: "Judicial Approach to Damages in a Personal Injury Case at the Appellate Level"; "Trial Technique in Personal Injury Cases, With Emphasis on Medical Testimony"; and "Relationship of Lawyers and Physicians in Accident and Compensation Cases."

At the meeting of the Black Hawk County Medical Society which is to be held at the Elks Club, in Waterloo, at 6:30 p.m. on December 16, **Dr. Robert C. Hickey,** professor of surgery at S.U.I., will speak on "Palliative Aspects of Cancer, a Chronic Disease." The controversial product Krebiozen will be one of the pharmaceuticals discussed.

Dr. Russell Meyers, a professor of neurosurgery at S.U.I., spoke to students, faculty and guests at the University of Michigan Medical Center in November on the subject of cerebral palsy.

N. S. Halmi, Ph.D., professor of anatomy at S.U.I., participated in a seminar at Emory University, in Atlanta, on November 4. He described research that he has conducted on the role of iodine in the coordinating of body functions.

More than 140 students from colleges throughout Iowa, with their advisors, attended the tenth annual Pre-medical Conference at University Hospitals, in Iowa City, on November 7. The speakers included **Dean Norman B. Nelson,** who gave the welcoming address, **Helen Hofer Gee, Ph.D.,** director of research for the Association of American Medical Colleges, and **Dr. Robert B. Kugel,** assistant professor of pediatrics at S.U.I.

Professor J. P. Baxter, vice-chancellor of the University of New South Wales, in Sidney, Australia, and chairman of the Atomic Energy Commission of Australia, visited S.U.I. in late October, during a tour of American and Canadian colleges. His school is planning to establish a college of medicine, and it also is to have a Kellogg Foundation grant like S.U.I.'s for a graduate course in hospital administration.

Dr. Richard D. Eckhardt, chief of the medical service at the Iowa City VA Hospital, has been appointed clinical associate professor of internal medicine at S.U.I. Clinical appointees hold teaching responsibilities.

Of course,  *women like "Premarin"*

Therapy for the menopause syndrome should relieve not only the psychic instability attendant the condition, but the vasomotor instability of estrogen decline as well. Though they would have a hard time explaining it in such medical terms, this is the reason women like "Premarin."

Doctors, too, like "Premarin," because it really relieves the symptoms of the menopause. It doesn't just mask them – it replaces what the patient lacks – natural estrogen.

"PREMARIN"®
conjugated estrogens (equine)

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Dr. Walter M. Kirkendall, an associate professor of internal medicine at S.U.I., has been named director of the University's cardiovascular research laboratories. The laboratories consist of five units, each devoted to study in a special field of heart research. Prior to his recent appointment at S.U.I., Dr. Kirkendall was chief of medicine at the VA Hospital, and in his new post he succeeds **Dr. James W. Culbertson,** who resigned some time ago to join the medical faculty of the University of Tennessee College of Medicine, in Memphis.

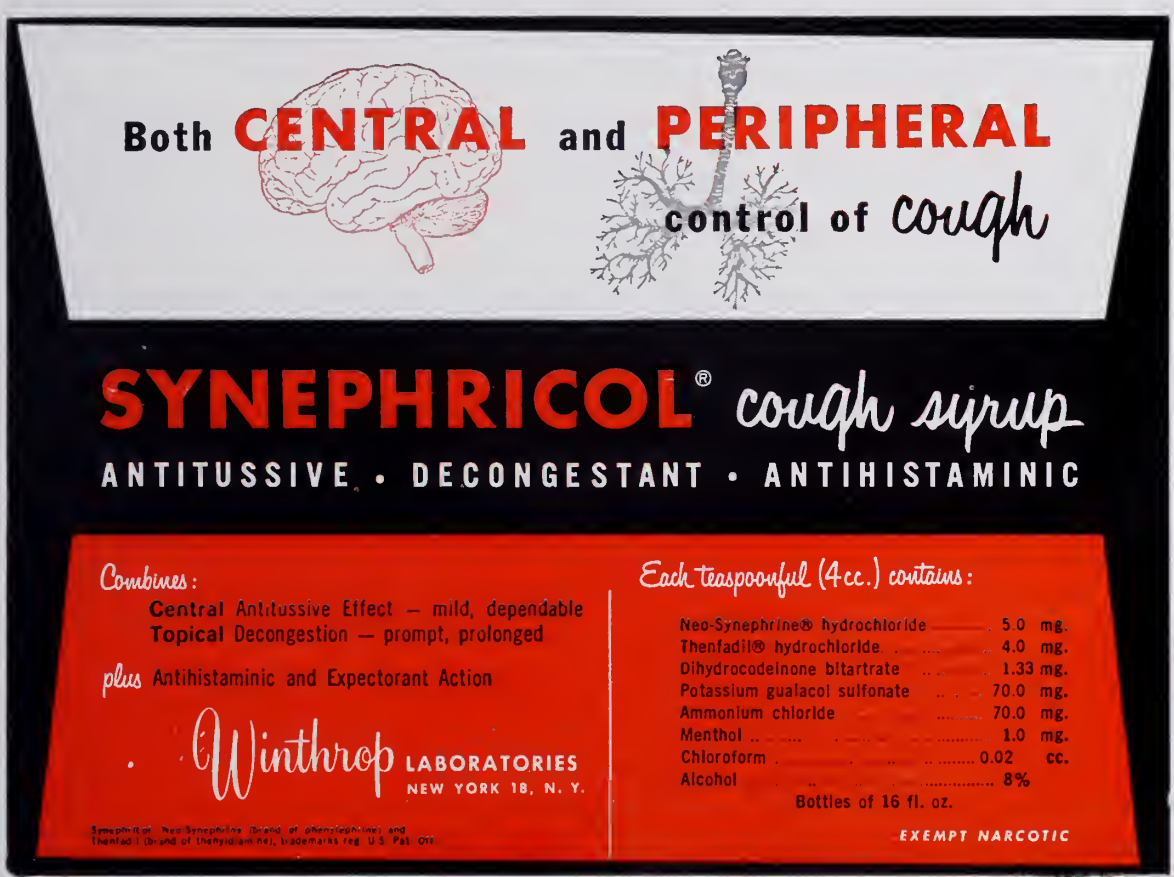
Dr. Robert G. Carney, professor of dermatology at S.U.I., has been named to membership on the Scientific Advisory Committee of the National Better Business Bureau. The committee, set up in cooperation with the AMA, will help control false and deceptive drug and cosmetic advertising by establishing standards for manufacturers to follow.

Dr. H. F. Hsu, a research associate professor of hygiene and preventive medicine at S.U.I., is the author of the chapter on Far Eastern schistosomiasis in a newly published book entitled DISEASES OF CHILDREN IN THE SUBTROPICS AND TROPICS.

Dr. Elwood Buchman, assistant chief of medical service at the VA Hospital in Iowa City and a clinical assistant professor of internal medicine at S.U.I., has been elected governor for Iowa of the American College of Gastroenterology.

The heads of two departments at the S.U.I. College of Medicine, **Dr. A. E. Braley,** of ophthalmology, and **Dr. A. L. Sahs,** of neurology, visited medical centers in several European countries during the latter part of October under the sponsorship of the National Institute for Neurological Diseases and Blindness. The purpose of the tour was to find facilities for advanced training in neurologic and sensory diseases. **Dr. Gordon Seger,** executive secretary of the Institute, accompanied them.

Dr. Lewis B. Harned, who recently completed his residency in orthopedics and orthopedic surgery at Northwestern University, joined **Drs. Clark N. Cooper, C. J. Mikelson, Lewis L. Zager** and **A. W. Devine,** all of them general surgeons, in Waterloo on July 1. Their group is now called Surgical and Orthopedic Associates.



Exactly how does new Halodrin* restore the "premenopausal prime" in postmenopausal women?

Webster defines "prime" as the period of greatest health, strength, and beauty. In a woman, these are the childbearing years between puberty and menopause—the years when her hormone production is highest.

The inevitable reduction in this hormone production as she enters the menopause often results in physical discomfort in the form of hot flushes, nervousness, insomnia, or a multiplicity of other symptoms with which you are familiar. Superimposed on this physical picture is the psychic trauma brought on by this unavoidable evidence of aging. The thing that brings her to a physician is simply that she "feels bad."

You can't make her 35 again—but the odds are good that you can make her feel like it! The secret is a combination of reassurance and hormones. The exact form and amount of the former defy objective analysis, but the latter can now be provided with scientific precision. Reduced to essentials, here is the explanation of exactly how hormones—in the form of Upjohn's new Halodrin—restore the "premenopausal prime."

The normal premenopausal woman excretes estrogens in the urine in the form of estradiol, estrone, and estriol, in an approximate 28-day average ratio of 39:15:46. Starting with this urinary excretion of estrogens, it is possible to calculate backwards and estimate the amount of estradiol that must have been secreted endogenously in order to produce these urinary levels. This is possible because the proportion of estrogens which appears in the urine following parenteral administration has been established in castrated women.

On this basis, the average endogenous output of estrogens is about 160 micrograms per day during a menstrual cycle, and 80 micrograms per day in postmenopausal women (see chart opposite). Therefore, the restoration of the "premenopausal prime" in the postmenopausal woman requires the replacement of approximately the equivalent of the 80 micrograms of estradiol per day that she no longer secretes endogenously.

Oral ethinyl estradiol is about 2 to 2½ times as potent as parenteral estradiol. Therefore, the replacement of 80 micrograms of endogenous estradiol production per day is accomplished by the oral administration of 32 to 40 micrograms of ethinyl estradiol per day.

Each Halodrin tablet contains 20 micrograms of ethinyl estradiol, which means that the recommended dosage of 2 tablets per day provides 40 micrograms of ethinyl estradiol. This offsets the loss of 80 micrograms of endogenous estradiol production in the menopausal woman; i.e., restores the "premenopausal prime."

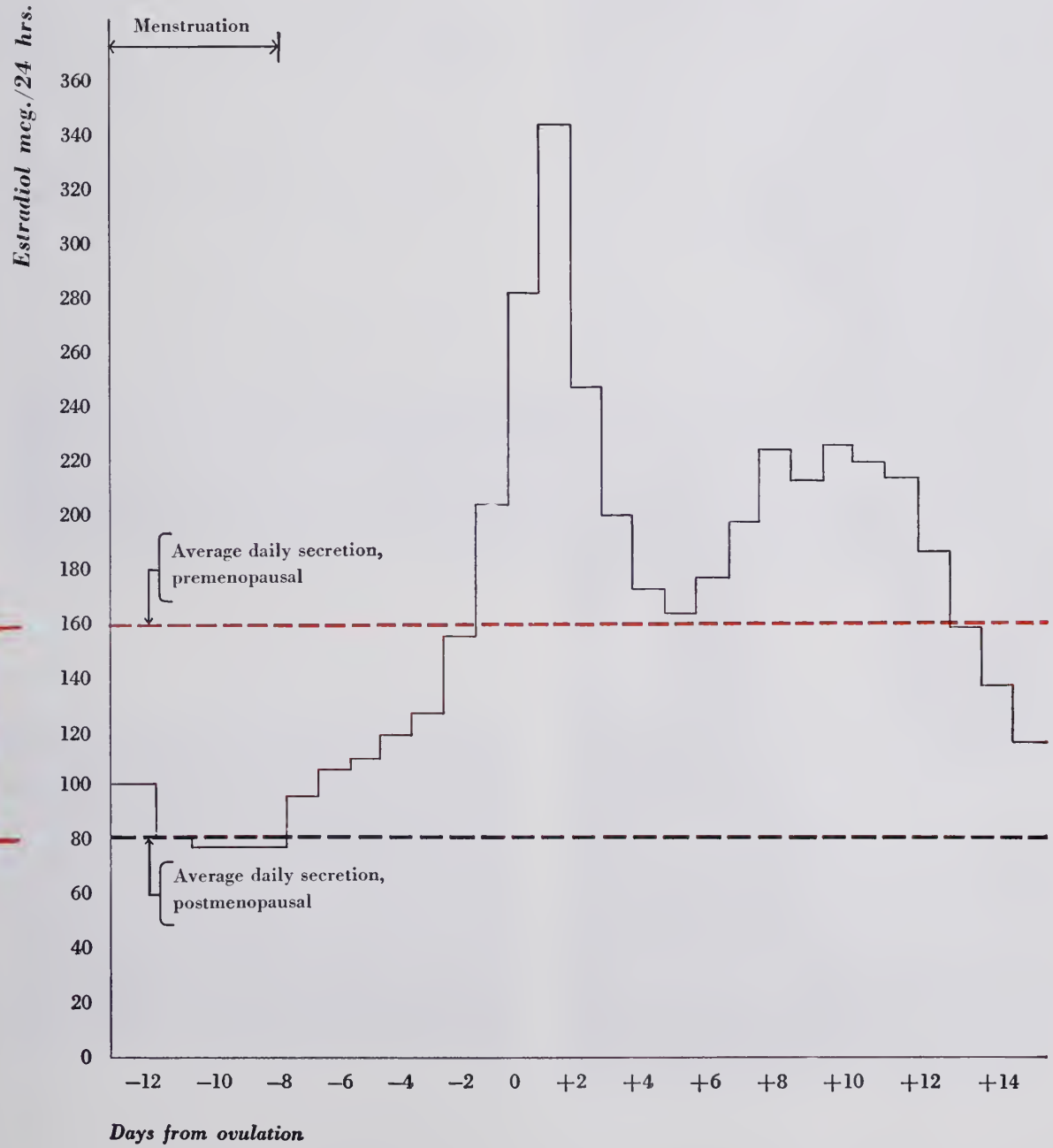
Each Halodrin tablet also contains 1 mg. of Upjohn-developed Halotestin* (fluoxymesterone)—the most potent oral androgen known. The primary purpose is to "buffer" the ethinyl estradiol just enough to prevent breakthrough bleeding, which is obviously undesirable in the menopause. It also exerts other beneficial hormonal effects, one of which, in common with ethinyl estradiol, is a powerful anabolic action so desirable in patients of advanced years.

Upjohn

*TRADEMARK, REG. U.S. PAT. OFF.

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Endogenous estrogen secretion (mcg./24 hours)
(calculated from average 24-hour urinary excretion
of estradiol, estrone, and estriol)





LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY,
Pearl River, New York

Dr. William Mulford, of Creston, has been notified that he passed the examination which was given recently in Rochester, Minnesota, by the American Board of Surgery.

Several physicians are among the officers of the most recently organized ones of the 12 regional Iowa Heart Association councils. **Dr. John Kersten,** of Fort Dodge, is vice-president of the Coon Valley Council; **Dr. D. E. Dunn,** of Estherville, is president, **Dr. E. B. Getty,** of Primghar, is vice-president, and **Dr. E. O. Schlichtemeier,** of Spencer, is secretary-treasurer of the Northwest Iowa Council; and **Dr. Galen C. Boller,** of Waterloo, is president of the Northeast Iowa Council.

The December 17 meeting of the Polk County Medical Society will take place at Iowa Lutheran Hospital, in Des Moines, and the medical staff there is to present a scientific program on the occurrence and treatment of aortic aneurysm.

Dr. Julius H. Comroe, Jr., director of the cardiovascular research institute and professor of physiology at the University of California Medical Center, San Francisco, and one of the Squibb Centennial Lecturers, will speak at the S.U.I. College of Medicine on March 2, 3 and 4, on the subject of contributions of pulmonary physiology to clinical medicine. **Dr. Edwin B. Astwood,** of the New England Medical Center, Boston, will speak at Creighton University School of Medicine, Omaha, on March 12, 13 and 14, on the management of thyroid disease.

At the November 20 meeting of the Woodbury County Medical Society, in the Sheraton-Martin Hotel, Sioux City, **Dr. Philip E. Bernatz,** of the Mayo Clinic, spoke on "Acute Surgical Abdomen."

At its annual election on November 4, the Scott County Medical Society chose the following officers: **Dr. C. M. Zukerman,** president-elect; **Dr. M. J. Brown,** vice-president; **Dr. A. B. Hendricks,** secretary; **Dr. T. W. McMeans,** treasurer; and **Dr. G. E. Morrissey,** historian. **Dr. A. C. Sorenson** assumed the presidency of the Society for the coming year.

Drs. J. H. Sunderbruch and **P. E. Gibson** were chosen as delegates to the Iowa State Medical Society, with **Drs. David Weaver** and **H. B. Weinberg** as alternates.

Attend the

1959 ISMS ANNUAL MEETING

April 19-22

Des Moines

SURGEON'S PROGRAM IN MIAMI BEACH

Nearly 100 surgeons from 19 states and three foreign countries will present the scientific program at the Southeastern Regional Meeting of the United States Section, International College of Surgeons, in Miami Beach, January 4-7. Sessions will be held at the Americana Hotel. Twelve surgical specialties will hold breakfast discussions, followed by a general surgery program. Specialty group meetings will be held Monday and Tuesday afternoons. In addition there will be color telecasts of surgery to the Hotel from St. Francis Hospital.

A special feature will be a panel for general practitioners on Tuesday morning. This has been accorded Category I credit by AAGP. It will deal with surgical emergencies, and the participants will include Drs. G. F. Lull, Edward L. Compere and Philip Thorek, of Chicago, Charles P. Bailey, of Philadelphia, W. McK. Craig and Gershom J. Thompson, of Rochester, Minnesota, Arthur Neal Owens, of New Orleans, and Jack H. Beckwith, D.D.S., of Miami.

The first 200 advance registrants will have a choice of 200 tickets, at regular prices, to the Orange Bowl game. The registration fee will be $10 for ICS members and $5 for members of AAGP. There will be a Woman's Auxiliary program.

A PREVENTIVE FOR VENOUS STASIS

As a means of preventing venous stasis, two Canadian surgeons have developed a technic for keeping a patient "walking" throughout surgical procedures.

Reasoning that the elimination of movement in leg muscles, as during surgery, permits blood to pool in the legs and establishes optimum conditions for the formation of blood clots, Drs. John and Angus D. McLachlin place skin electrodes on the patient's legs and send a pulsating electrical current through them to produce regular contractions of the calf muscles during the operation and until the patient is conscious enough to move about.* As the muscles contract, they act as a pump, forcing blood back to the heart.

The two doctors admit that they aren't sure they have solved the problem, for the role of venous stasis in pulmonary embolism has not been definitely proved. "Only time and an adequate number of cases," they said, "will let us determine whether keeping the 'peripheral venous heart' active during operative procedures will lessen the frequency of pulmonary embolism."

* McLachlin, J., and McLachlin, A. D.: Peripheral Venous Heart. AMA ARCH. SURG., 77:568-575, (Oct.) 1958.

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Mild Mental and Nervous Cases
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Protection Against Loss of Income From Accident and Sickness as Well as Hospital Expense Benefits for You and All Your Eligible Dependents.

ALL PREMIUMS COME FROM — PHYSICIANS SURGEONS DENTISTS — ALL BENEFITS GO TO

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Since 1902

Handsome Professional Appointment Book sent to you FREE upon request.

Seven-Up is Good!



So pure and wholesome that Seven-Up is known as the All-Family Drink. Folks of all ages—from toddlers to grandparents—may enjoy it.

"Fresh up" with Seven-Up

The Seven-Up Bottlers Of Iowa

DEATHS

Dr. John R. Buser, 77, of LaPorte City, died of cancer at the Schoitz Memorial Hospital, in Waterloo, on October 23, after a long illness. He began practice in LaPorte City in 1915, and kept working until a few days before his death.

Dr. George William Koch, 80, a Life Member of the Iowa State Medical Society who practiced in Sioux City for 36 years before moving to California in 1942, died in Anaheim on October 22.

Dr. Carl Stutsman, 90, died on October 27 at Burlington. From 1893 until 1917, he practiced there, and from then until 1936, he was an insurance company medical director in Des Moines. He had returned to Burlington after retiring.

Dr. James Dunn, 79, for many years a Davenport pediatrician, died on October 11 in Muscatine. He was a Life Member of the Iowa State Medical Society.

Dr. Charles Dyer Martin, 64, a Davenport E.E.N.T. specialist, died in Chattanooga on October 13.

Dr. Joseph Albert Goodrich, 87, who practiced medicine in Des Moines for 40 years before retiring in 1946, died at a nursing home in Glenwood on October 13.

Dr. James W. Gaffey, 79, who had practiced medicine in Cedar Rapids since 1917, died there on November 2.

RESULTS OF FOREIGNERS' EXAMS

On September 23, in 30 centers in this country and at 30 in foreign lands, 418 out of 844 foreign-trained physicians passed the examination given by the Educational Council for Foreign Medical Graduates, an organization sponsored jointly by the AMA, the AHA, the Association of American Medical Colleges and the Federation of State Medical Boards of the United States. According to the Council, these 418 physicians are certified as possessing medical knowledge reasonably equivalent to that expected of graduates of approved American and Canadian medical schools and as having satisfactory facility in the English language.

These 418 doctors will be entitled to take licensing examinations in at least 16 states, and can satisfy the requirement of some specialty boards as having graduated from approved schools.

In spite of language difficulties, 226 additional candidates came sufficiently close to passing to earn temporary certificates qualifying them to study not more than two years as internes or residents in U. S. hospitals.

If you were to examine these patients



could you detect the uveitis patient on Medrol*?

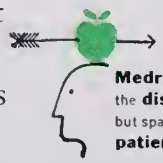
Probably not. Not without a history.

First, because he's more than likely symptom-free.

Second, because he shows none of the disturbing changes in appearance, behavior or metabolism sometimes associated with corticotherapy.

Even your practiced clinical eye would find it difficult to spot someone else's Medrol patient.

But in your own patients, you could see the advantages of Medrol right away. Why not try it?



Medrol hits the **disease,** but spares the **patient**

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Now—All cold symptoms can be controlled

This new timed-release tablet provides:

...the superior decongestant and antihistaminic action of Triaminic

...non-narcotic cough control as effective as with codeine, but without codeine's drawbacks

...an expectorant to help the patient expel thickened mucus

...the specific antipyretic and analgesic effect of well-tolerated APAP

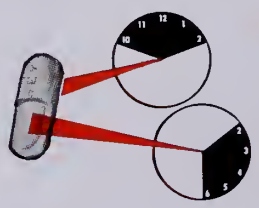
...the prompt and prolonged activity of timed-release medication

Each* TUSSAGESIC *Tablet contains:

TRIAMINIC® . . . . . 50 mg.
(phenylpropanolamine HCl . . . . 25 mg.;
pheniramine maleate . . . . . 12.5 mg.;
pyrilamine maleate . . . . . 12.5 mg.)
Dormethan
(brand of dextromethorphan HBr) . . 30 mg.
Terpin hydrate . . . . . 180 mg.
APAP (N-acetyl-p-aminophenol) . . . 325 mg.

Also available:
for those who prefer liquid medication—
Tussagesic suspension
In each 5 ml.: Triaminic, 25 mg.; Dormethan, 15 mg.; terpin hydrate, 90 mg.; APAP, 120 mg.

Tussagesic timed-release tablets provide relief in minutes, which lasts for hours



first—3 to 4 hours of relief from the outer layer

then—3 to 4 more hours of relief from the inner core

Dosage: 1 tablet in the morning, mid-afternoon, and evening, if needed. Should be swallowed whole to preserve the timed-release action.
Suspension: Adults—1-2 tsp. every 3-4 hours; Children 6-12 years old—1 tsp. every 3-4 hours; Children under 6—dosage in proportion.

NEW Tussagesic*

*Contains TRIAMINIC to STOP running noses and open stuffed noses orally

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SPEAKERS' BUREAU SCHEDULES

RADIO

WOI—Ames, Iowa

Thursday at 1:15 p.m.

"THE HEART OF AMERICA"

December 4 How to Live With a Damaged Heart

"WELL AT WORK"

December 11 ..... The Handicapped Worker
December 18 ..... Major Job Problems—Job Reassignment
December 25 ..... Occupational Disease Control

WSUI—Iowa City, Iowa

Monday at 2:30 p.m.

"SUPERSTITION AND SCIENCE"

December 1 ..... Tonics and Home Remedies

"THE HEART OF AMERICA"

December 8 ..... Research
December 15 ..... What's a Heart Murmur
December 22 ..... Rheumatic Heart
December 29 ..... Congenital Heart Disease

TELEVISION

KQTV—Fort Dodge, Iowa

Wednesday at 7:00 p.m.

December 3 ..... Physical Examination
December 10 ..... Later Years
December 17 ..... Plastic Surgery
December 24 ..... Stuttering
December 31 ..... Nursing

KCRG-TV—Cedar Rapids, Iowa

Sunday at 1:00 p.m.

December 7 ..... The Doctor and the Minister
December 14 ..... Physical Examination
December 21 ..... Later Years
December 28 ..... Plastic Surgery

KVTV—Sioux City, Iowa

Sunday at 1:00 p.m.

December 7 ..... Boy-Girl Relations I
December 14 ..... Boy-Girl Relations II
December 21 ..... Rheumatic Fever
December 28 ..... Getting Along

The foregoing schedules are subject to change at the discretion of the station managers.

ANNUAL CLINICAL CONFERENCE

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Daily Half-Hour Lectures by Outstanding Teachers and Speakers on subjects of interest to both general practitioner and specialist

Panels on Timely Topics **Teaching Demonstrations**

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Scientific Exhibits worthy of real study and helpful and time-saving Technical Exhibits

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Approximately a year ago, the Blue Cross and Blue Shield Sales Department began offering the no-fee-schedule Blue Chip coverage to the public. Sales were slow in the early stages. Our Sales Department had many other activities that demanded time—the rerating of groups, for example.

Lately, our sales representatives have had the opportunity to expend time and effort toward the sale of the Blue Chip, and their work has been rewarding. Nearly 6,000 persons now enjoy the complete protection afforded by the new coverage. Quite a number of these people have purchased either some form of deductible—generally $25, or 20 per cent participating agreements with a maximum deductible of $100. Most have elected to be insured up to a $1,000 maximum for any one accident or illness per member.

Blue Shield agrees to pay the customary, usual and reasonable charges for the professional services provided as benefits of the certificate. Some prospective applicants take the attitude that such an undertaking is too good to be true—that no corporation would be foolish enough to give anyone a blank check already signed and say, "Fill in the desired amount." We have no fear that our blank-check privilege will be abused, however, for Blue Shield is run by physicians for the benefit of the public.

Blue Shield is sponsored by the Iowa State Medical Society, and the leaders of medicine realize that by working together through the medium of health insurance, doctors can best provide their patients with full services at a price they can afford to pay.

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REFERENCES:

1. Eisenberg, B. C.: Clinical Medicine *5*:897-904 (July) 1958.
2. Feinberg, A. R., et al.: J. Allergy *29*:358 (July) 1958.
3. Robinson, H. M., et al.: So. Med. J. *50*:1282 (Oct.) 1957.

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WASHINGTON COUNTY CARDIAC FARMER FOLLOW-UP

Farmers who have heart disease can stay on the farm if they come to understand their physical limitations and change their work routines, Dr. Lewis January, professor of internal medicine at S.U.I., told the annual meeting of the American Heart Association, in San Francisco on October 26. In making that statement, he was reporting the results of the Washington County, Iowa, Cardiac Farmer Study.

Two physicians, the county extension director and a vocational counselor studied 43 farmers and three farm wives, individuals averaging 50 years of age who had been referred to the team as known or suspected heart cases.

Each farmer was given a physical examination. Then the farm and job experts visited each patient on his farm to analyze the work done there. Finally, the group made recommendations to the farmers.

Dr. January said that 10 of the farmers had significant heart disease but were able to continue normal farming after making changes in their working procedures. Eleven, including five who were found free of heart disease, were able to continue farming without change. Nine stayed on the farm by making major shifts in their work load through partnership or lease arrangements.

He said a follow-up medical examination a year or two later revealed that four of the heart patients who had continued farming were improved in health. Three farmers had continued farming only temporarily—until they reached retirement age. Three working farm wives were included in the group. One of them was rehabilitated by heart surgery, and the other two were advised to restrict their activities to housework. Ten men left the farm, either to find more sedentary occupations or to retire.

The other physician on the study team was Dr. Joseph P. Stoikovic, then of S.U.I., but now in private practice in Burlington.

DISEASES OF THE CHEST

The Council on Postgraduate Medical Education of the American College of Chest Physicians will present its fourth annual Postgraduate Course on Diseases of the Chest at the Sir Francis Drake Hotel, San Francisco, February 16-20, 1959. The most recent advances in the diagnosis and treatment of heart and lung diseases, medical and surgical aspects, will be presented.

Tuition for the five-day course will be $100, including luncheon meetings. For further information, address the executive director of the College, 112 East Chestnut Street, Chicago 11.

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Virtual absence of diabetogenic activity, edema, sodium or water retention, hypertension, or psychic reactions has been noted with DECADRON.[1,2,3,4] Other "classical" reactions were less frequent and less severe. DECADRON showed no increase in ulcerogenic potential, and digestive complaints were rare. Nor have there been any new or "peculiar" side effects, such as muscle wasting, leg cramps, weakness, depression, anorexia, weight loss, headache, dizziness, tachycardia or erythema. Thus DECADRON introduces a new order of magnitude in safety, unprecedented in corticosteroid therapy.

In Therapeutic Effectiveness

With DECADRON, investigators note "a decided intensification of the anti-inflammatory activity"[3] and antirheumatic potency.[4] Clinically, this was manifested by a higher degree of improvement in many patients, previously treated with prednisteroids,[3] and by achievement of satisfactory control in an impressive number of recalcitrant cases.[3,4]

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More patients can be treated more effectively with DECADRON. Its higher anti-inflammatory potency frequently brings relief to cases resistant to other steroids. Virtual freedom from diabetogenic effect in therapeutic dosage permits treatment of many diabetics without an increase in insulin requirements. Absence of hypertension and of sodium and fluid retention allows effective therapy of many patients with cardiovascular disorders. Reduction in the incidence and severity of many side effects extends the benefits of therapy to numerous patients who could not tolerate other steroids. And a healthy sense of well-being, reported by nearly all patients on DECADRON, assures greater patient cooperation.

References:

1. Boland, E.W.: California Med. 88:417 (June) 1958.
2. Bunim, J.J., et al.: Arthr. & Rheum. 1:313 (Aug.) 1958.
3. Boland, E.W., and Headley, N.E.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Cal.
4. Bunim, J.J., et al.: Paper read before the Am. Rheum. Assoc., June 21, 1958, San Francisco, Cal.

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Detailed literature is available to physicians on request.

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TRAINING PROGRAM IN PSYCHIATRY

The National Institute of Mental Health, an instrumentality of U.S.P.H.S., is offering grants to finance psychiatric trainings for general practitioners and other physicians engaged in non-psychiatric medical practices.

Medical schools, hospitals, clinics and medical and psychiatric societies will be given money with which to provide postgraduate training in the form of short-courses, institutes and seminars, or in the form of regular courses extending over an academic year. In this part of the program, federal money will not provide for the subsistence or the traveling expenses of the physicians who attend.

The federal government will also provide training stipends of as much as $12,000 per year each for physicians in practice who wish to take psychiatric residency training.

Physicians who are interested in the short courses should apply to medical schools, hospitals, clinics, or medical or psychiatric societies that are developing such programs. Those interested in undertaking psychiatric residencies at government expense should apply to training institutions which are approved for psychiatric residency training, or to Dr. Seymour D. Vestermark, Chief, Training Branch, National Institute of Mental Health, National Institutes of Health, Bethesda 14, Maryland.

MEDICAL SCHOOL ENROLLMENTS

The 85 American medical schools spent an estimated $275,000,000 in 1957-1958, an increase of 13 per cent over the previous year. These and many other interesting statistics are contained in a 90-page report published by the AMA Council on Medical Education and Hospitals in the November 15 issue of J.A.M.A.

The 78 four-year schools that are now fully approved by the Council graduated 6,861 physicians last spring, in contrast with 6,796 in 1957, and 6,977 in the record year 1955. Five new schools have yet to graduate their first classes. A new record was established in 1957-1958 for students beginning medical training in this country—8,030 freshmen, in contrast with 6,487 as recently as 10 years earlier.

Only seven schools, all state-owned, still limit enrollment to residents of the state in which the school is located—a decrease of five during a single year. The report showed that the publicly-owned schools had an average of only between 4 and 9 per cent of their students from outside their respective states, and perhaps as a consequence, the numbers lost to medicine by poor scholarship during the first year were significantly larger in the public institutions than in the private ones. Fewer applicants meant less opportunity for the state-school faculties to choose promising beginners.

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FOR SALE: Medical textbooks and some current books dealing specifically with internal medicine and electrocardiography belonging to the late Dr. Clare E. Knouf. Also Tice encyclopedia, Practice of Medicine, sphygmomanometer, otoscope and ophthalmoscope. Address: Mrs. Verna Knouf, Lake City, Iowa.

WANTED: Physician about to retire who wishes to do office practice in a small central Iowa town. Modern office; no driving or out-of-office calls. Address: No. 1,113, Journal of of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: Associate or partner for GP 48 years of age. Town of 1,000 has good school, rich farming area. Investigation welcome. Address: C. A. Heise, Jr., M.D., Jewell, Iowa.

WANTED: General practitioner to take over active practice now being vacated in central Iowa town of 1,500. Equipment and building can be rented or bought on time. Address: No. 1,115, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER urgently needed for Plum City, Wisconsin. Population 400; area population 6,500; 32-bed hospital. Equipped office and unfurnished 4-bedroom home. Congenial, cooperative populace; large, unopposed practice. Near beautiful Lake Pepin in hunting and fishing area. Address: D. J. Harmer, R.P., Plum City (Phone: 30), or Paul S. Haskins, M.D., president of Pierce County Medical Society, River Falls, Wisconsin.

WANTED: Physician to take over active general practice in county seat town. Air-conditioned office for rent; trained office help available. Equipment for sale on easy terms; no other investment required. Practice established 20 years. Retiring physician will introduce new man and work with him for a month, if desired. Address: No. 1,114, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GROWING GROUP of four physicians is interested in securing a board-eligible internist. Excellent central Nebraska location, very good salary and partnership arrangement. Going into new clinic building to be financed by present partners. Address: No. 1,116, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

WANTED: General practitioner to associate with established M.D. in small clinic with hospital facilities. Excellent opportunity. Address: No. 1,117, Journal of the Iowa State Medical Society, 529—36th Street, Des Moines 12, Iowa.

GENERAL PRACTITIONER needed in northeastern Iowa town in center of prosperous farming community. Community hospital; large territory. Deceased physician's office, drugs and records are available. Address: Mrs. J. A. Urban, Riceville, Iowa.

LIST YOUR WANTS

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ASSOCIATE IN GENERAL PRACTICE: Am in position to offer added inducements besides top salary, good relations with teaching specialists. City of 250,000 only 35 miles away over a new highway. Very prosperous community with large drawing area. New man can expect either to take over or become full partner in excellent practice within a reasonable length of time. Address: No. 1,108, Journal of the Iowa State Medical Society, 529 Thirty-sixth Street, Des Moines 12, Iowa.

LOCATIONS: We shall be very happy to assist, without charge, any doctor looking for a location, and we are able to offer some excellent opportunities for associations with established physicians. We also invite any communities desiring the services of a physician to get in touch with us. Professional Management, 404 Insurance Building, Waterloo, Iowa.

WANTED: Young man to take over established general practice in downtown Des Moines. Fully equipped office, with histories, etc. Owner plans to leave the state and will sell for the value of his equipment alone. Address: No. 1111, Journal of the Iowa State Medical Society, 529-36th Street, Des Moines 12, Iowa.

FOR SALE: Medical equipment including x-ray, late diathermy, suction-pressure apparatus, examining tables, etc. Write to P.O. Box 155, Cascade, Iowa, for appointment to inspect them.

FOR SALE: Office equipment, supplies and instruments, including a 15 ma portable x-ray. To inspect these items, see Mr. John Liljedahl, Essex, Iowa.

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